Uneven Temporalities of Recovery, Emotion, and Deservingness after Disaster: The 2018 Camp Fire in California

Deanna K. Corin

A thesis submitted to the faculty at the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of PhD in the Department of Geography in the College of Arts and Sciences.

Chapel Hill
2020

Approved By:

Banu Gökarıksel

Sara Smith

Gabriela Valdivia

ABSTRACT

Deanna K. Corin: Uneven Temporalities of Recovery, Emotion, and Deservingness after Disaster: The 2018 Camp Fire in California
(Under the direction of Banu Gökarıksel)

In this thesis, I argue for the importance of considering uneven temporalities of recovery as well as entanglements of emotion and place when analyzing vulnerability and deservingness in post-disaster landscapes. Through textual analysis, semi-structured interviews, and analyzing the documentary *Fire in Paradise* (2019), I focus on questions of temporality, emotion, and sense of place as it relates to vulnerability and deservingness from the 2018 Camp Fire in Butte County, California. Building on political ecology and feminist theory, my analysis reveals the mechanisms that continue to exclude and marginalize certain subjects through the efforts of recovery. Temporal expectations of individualized recovery and minimal resources to address emotional well-being combined with the neglect of 'undesirable' subjects seen as at fault for their conditions produce persistent vulnerabilities during the recovery process. Thus, this thesis expands understanding of short and long-term impacts of a wildfire, paving the way toward more equitable recovery efforts.

ACKNOWLEDGEMENTS

I would like to thank my advisor, Banu Gökarıksel, for all of her ongoing support and insight as well as the other members of my committee, Gabriela Valdivia and Sara Smith. I would also like to thank the Feminist Geography Working Group for reading many iterations of this work and offering feedback and pushing my arguments further. Thank you, Steve Birdsall for funding Masters research, and specifically this work. Many thanks and much gratitude to my undergraduate mentor Madhavi Murty, I surely would not be in graduate school if it wasn't for your encouragement and support. Thank you to the Department of Geography at UNC-Chapel Hill. And finally, thank you to Carter who has supported me through each step with patience and enthusiasm.

TABLE OF CONTENTS

INTRODUCTION

In this thesis, I argue for expanding analysis on wildfire recovery in two main ways: considering the uneven temporalities of recovery as well as the entanglement of emotion and place in post disaster landscapes. I push forward a framework of vulnerability that moves past the material to consider the emotional, temporal, and placed-based experiences of a disaster and highlight shifting definitions of deservingness. Specifically, my research focuses on questions of temporality and emotion as it relates to vulnerability and recovery from California wildfires. Temporality isn't referring to clock time, but instead to an embodied sense or experience of time that is entangled in or responding to power relations (Sharma, 2013). Using temporality as an analytical lens allows me to view wildfires not as temporally isolated events that take place within an easily identifiable time frame but instead as events that affect how people understand time and reorient themselves to the past, present, and future within place. Often, places can be co-constituted through social and ecological processes that hold significance through cultural and historical meaning embedded in regional socioecological systems (Rice et al, 2015: 257). Sense of place is an orientation to a physical and social environment that is also imbued with cultural meaning, social relations, and power dynamics producing a geographical sense of meaning (Massey, 2005: 5; Asklund and Bunn, 2018: 19). Temporality as well as emotion and sense of place become vital intersecting modes of analysis that complicate notions of recovery and the processes that produce the conditions of vulnerability and deservingness, allowing for more rigorous understanding of short and long-term efforts of wildfire recovery.

Severe droughts, climate change, and expanding development of the wild-urban interface have increased the severity, frequency, and cost of wildfires throughout California (Davis, 1995; Syphard et al 2007; Simon, 2018). As fires are once again raging in California, I'm also thinking how the seasonality affects how fires are perceived and experienced. There is an expectation that fires will happen each year, but they have notably gotten worse. The seasonality of California wildfires was once bounded to several months but now spans the entire year (Personal Correspondence with CalFire firefighters Sean Norman and Tony Brownell). This expanding seasonality affects how people respond emotionally to the fires. Especially as the notion of recovery becomes never ending with expanding fire seasons and their larger impacts. More people are being impacted and displaced by these wildfires, which informs a growing need to attend to the emotional and temporal impacts during ongoing efforts of recovery. During the event of a wildfire everyone might be affected similarly regardless of socioeconomic, racial/ethnic, or age-based differences within a population. But rather than looking at a fire as an event isolated in time and place, using temporality as a mode of analysis and tracing how fires affect different populations becomes increasingly important during this trend of worsening wildfire seasons and amidst ongoing recovery efforts. Additionally, considering how sense of place becomes enmeshed in the emotional impacts of a natural disaster requires more attention and analysis, complicating notions of what it means to have recovered.

I focus my research on the 2018 Camp Fire in Butte County and the subsequent recovery efforts up to one year later. At the time, the Camp Fire was the worst wildfire in California history, burning 153,336 acres, destroying approximately 14,000 homes, and killing 85 people. The fire began on Nov 8th and burned for 17 days until it was fully contained on November 25th. This wildfire produced over 5 million tons of hazardous debris, damaged municipal water

systems, and left communities urgently considering the precarity of their own safety. The process of recovery and rebuilding will be an ongoing undertaking for years to come. Butte County is one of the poorer counties in California with 18.5% of the population living below the poverty level, compared to the 12.8% average in California, and a median household income at 68% the state's average[1]. The Social Vulnerability Index rates Butte County's social vulnerability to environmental hazards as medium to the US, but as medium-high in relation to the state[2]. Social vulnerability is typically measured using indicators of age, race, gender, built environment, and socioeconomic status (Cutter et al, 2003). The Camp Fire devastated the small town of Paradise and surrounding unincorporated areas displacing whole communities and leaving many in a precarious financial situation facing a housing crisis. Learning what the ongoing community impacts are during recovery will be vital to further understand who is most effected, why this is so, and how the duration of the fire's impacts differ for different populations. This study is not intended to critique the individuals in Paradise and Butte County who not only have been tirelessly working to manage efforts of recovery but also have been deeply impacted by the Camp Fire. Instead, I am offering a different sort of analysis on disaster recovery, one that critically emphasizes how the systems in place to respond to disasters are embedded in historical social and political processes which often have negative impacts on already vulnerable populations, while highlighting the importance of emotion, sense of place, and temporality as modes of analysis when considering long term recovery.

[1] Retrieved from https://www.census.gov/quickfacts/fact/table/buttecountycalifornia,CA/PST045218

[2] Retrieved from http://artsandsciences.sc.edu/geog/hvri/sites/sc.edu.geog.hvri/files/attachments/California_0610.pdf

Reflections on Methods and Analysis

Having grown up in southern California, I remember the collective anxiety and distress associated with recurrent wildfires. In the last two decades, severe droughts, climate change, and expanding urban development have increased the severity and frequency of wildfires in California. My interest in this research began to develop while I was farming in northern California. During a particularly bad wildfire season in 2015 there were many days where ash would intermittently rain down on me while I was working. Though a wildfire quickly catches attention, my research reveals how important it is both to attend to uneven temporal aspects of the recovery process and the emotional elements linked in disruptions to our sense of place. As more people are affected and displaced by these wildfires, studies attending to health impacts and wildfire preparedness grow, however studies on the emotional and long-term effects of recovery remain limited. I find the California wildfires are a critical and urgent case to analyze how communities are differentially impacted and how negative emotional health impacts may last beyond the material aspects of recovery.

As I began my research, my focus shifted as certain themes continually emerged. My original research project focused much more on the material aspects of wildfire response and recovery and I was wary of asking personal questions about experiences of recovery or memories of the Camp Fire. I tried to focus on questions addressing occupational aspects of my research participants jobs as it relates to wildfires, mistaking this as a way to stay neutral or unemotional. But as I started to conduct the research, beginning with textual analysis of newspaper articles about fires in California followed by interviews and film analysis, the importance of temporality, sense of place, and emotion became a central part of narratives of recovery. I shifted my research

to then focus on these themes, as a different side of experiencing a disaster and navigating recovery that is less often represented in hazards and vulnerability research. I attended to moments in my data when themes of time or emotion are expressed. This also shifted the bodies of literature I was reading and that I utilize in my analysis. With a feminist approach, I chose to focus on emotions in order to emphasize the role emotional vulnerability plays in response to experiences of disasters, how emotional vulnerability is entangled in material aspects of vulnerability as well as how emotion changes over time. Similarly, how research subjects narrate memories of their experience, how they envision the future within the context of worsening wildfires, and how they navigate processes of recovery work to reveal the uneven temporalities inherent in disaster vulnerability and recovery. Most importantly, across each method, lining up the narratives from various actors and research participants worked to reveal dominant understandings and values as well as silences or gaps in particular moments and from particularly positioned people. Identifying these gaps illuminated differences in how and whose vulnerability, emotional and material, are understood across different spaces and times within wildfire recovery.

I formulated questions addressing emotional vulnerability, temporality, and understandings of deservingness in recovery. For my first question, I pulled from the recently released documentary Fire in Paradise (2019) along with my interview data to ask how the different actors impacted by the Camp Fire understand, conceptualize, and narrate emotional impacts associated with this fire and the subsequent recovery efforts. I analyze, in Chapter 2, how emotions are portrayed in the telling of the evacuation and subsequent recovery of the Camp Fire. I investigated how portrayals of pain, fear, and other emotional responses generate certain representations and knowledge of the Camp Fire that persist through embodied performances and

anxieties about forgetting. For my second question, I use interview data to ask how differently positioned subjects experience different temporalities and vulnerabilities as they navigate recovery? And through reflecting on this question, I highlight in both chapters and the conclusion the need for different methods of recovery when considering the uneven temporalities of disaster, such as more psychological services as well as place-making and community-building activities. My interviews revealed how preexisting socioeconomic inequalities are reproduced and reconfigured after the Camp Fire through subsequent recovery efforts and how this may produce uneven temporalities of recovery or vulnerability. I also looked at how the different experiences of emotional well-being can affect communities differently. For my final research question, I use interview data to ask how the 'deserving individual' is continually re-imagined in post disaster recovery narratives and how this impacts the notion of deservingness, which was continually contested and redefined during recovery. I analyze this question in Chapter 1. This question also draws on textual data and visual analysis of Fire in Paradise. Through narrative analysis, I analyze how notions of deservingness change during recovery, how communities relate to or play a role in post-disaster regions, and the changes to how vulnerability is understood over time.

Textual and Archival Analysis

Early in the summer of 2019, I began to conduct textual analysis of California newspapers and archival analysis of wildfire data from the CalFire Archives. Ultimately, I found that this archival data was less central to my research and do not include it in this thesis.

Through the textual analysis, mainly reading through media coverage of fires, I began to identify a trend that emerged along with the worsening California wildfires which gave me my

first insight into the importance of considering the emotional elements of wildfire recovery. I observed that media coverage of wildfires prior to 2017 often focused on property loss, the logistics of how fires were fought, weather conditions, and state versus federal responses. But after a particularly bad fire season in 2017, more media coverage began to attend to questions of ongoing health impacts, rebuilding, and precarious futures. While there were often emotional quotes included from someone who lost their home or experienced an evacuation, this shift in media coverage revealed to me the growing anxieties over worsening wildfire seasons signaling the need to attend to the emotional impacts of disasters as well as their uneven temporalities. While I predominately focus on interview data and analysis of the documentary film, I do include some textual analysis of selected news media as well as state and county websites addressing wildfire mitigation and recovery. I find including analysis of news media and government narratives offer more context on experiences and priorities of recovery and rebuilding, elucidating which actors are dominantly portrayed, whose needs are addressed, and how health and material burdens of wildfires may be understood to disproportionately impact vulnerable populations. Specifically, I draw from documents found on Butte County's website that address emotional support after the fire and ideas of community rebuilding.

Semi-Structured Interviews

During the summer and fall of 2019, I conducted a total of 10 interviews, that lasted between 45 minutes to 2 hours, with CalFire firefighters (2); officials from the local government (1), office of emergency services (2), recovery coordination (1), social and behavioral health services (3) in Butte County; and an employee of the California Public Utilities Commission (1). A significant number of these interviewees are from Butte County and Paradise. I had intended

to travel to Butte county for the 2019 summer to conduct ethnographic research, but was unable to and had to reimagine what this first year of field work would look like. I decided to focus on phone interviews. Phone interviews have obvious draw backs and considering these limitations I decided not to seek interviews with residents who did not have an official role in relation to the Camp Fire or relevant services. I felt that speaking to residents who were not speaking to professional roles in wildfire mitigation, response, and recovery felt more exploitative than if these interviews were in person. Through narrative analysis and identifying descriptive data in my interviews, I attended to emerging trends, how certain values or priorities are expressed, what is omitted in these interactions, and to elucidate on lived experiences of recovery surrounding wildfires with a specific focus on the Camp Fire. I used these interviews as a primary source to assess for how emotional vulnerability is portrayed as well as to discuss uneven temporalities of recovery and notions of deservingness.

As I began interviews I realized my own apprehension in asking people to talk about the Camp Fire due to how emotional it would always get. Through the way emotions were expressed throughout my interviews it became evident that this was an important aspect of recovery that is less attended to. And one that complicates notions of recovery and what it then means to be fully recovered. During this time, I was reading scholarship on fires that addressed vulnerability. I began to notice a gap where often the focus was on the growing material inequalities but rarely considered the emotional and place-based impacts of fires and their persisting effects. Through the research process, I changed my research focus to analyze questions of temporality, vulnerability, and how deeply enmeshed sense of place is with emotional well-being.

I wasn't prepared for how deeply enmeshed emotion was into each aspect of my research participant's stories, even as they talked about their professional responsibilities. This really

shouldn't have come as a surprise and as I reflect on this urge to remain impersonal, I realize that I was trying to distance myself from my own emotions as they relate to wildfires in California. When trying to discuss aspects of weather patterns with fire fighters, discussions of ongoing PTSD would come up, or references to the future being defined by devastation. Those were probably the hardest conversations I had. These interviews ultimately initiated the shift in my research focus, and I began to reach out to more behavioral health and social workers. Speaking to behavioral health and social workers began to reveal a very different story of wildfire recovery, one that focuses on the different temporalities of the disaster and how deeply emotion is enmeshed in these experiences. Through my interviews a story of Paradise as two towns in one continually emerged. Based on the interview participant's role in the town of Paradise and the recovery efforts, different narratives of recovery and deservingness were detailed that revealed a difference in ultimately who was included in visions of rebuilding. I explore this bifurcation thoroughly in Chapter 1, but it continues to persist throughout this thesis.

Film Analysis

In the fall of 2019 a Netflix Documentary Fire in Paradise (Cooper and Canepari, 2019) was released. This film was produced by filmmakers Drea Cooper and Zackary Cannepari[3] and was released on Netflix on November 1st, 2019 (the founders of Netflix live in California). This is one of the first documentary films to have been released about the Camp Fire. Watching this film solidified the importance of attending to emotional impacts due to disasters. I included this film in my thesis in order to analyze how emotion is performed and expressed and what work emotion plays in understandings of the Camp Fire itself. This film also demonstrates how

[3] http://www.zcdc.tv/ Zackary Cannepari and Drea Cooper's website with their other documentary and commercial work.

enmeshed emotion and sense of place is with the experience of a natural disaster and the subsequent recovery. This documentary mainly focuses on the evacuation of the Camp Fire from certain perspectives but also discusses aspects of recovery up to 6 months later. Without prior knowledge, I interviewed one of the subjects of this documentary before its release. While analyzing the film, I focused on the juxtaposition of narrative and imagery, that works together to tell the story of the Camp Fire which works to evoke emotions from the viewer. Because this is one of the first documentaries released on the Camp Fire, it also works to produce a dominate narrative of the experience of the evacuation of the Camp Fire and subsequent recovery that circulates to a larger audience, and therefore becomes important to include in my research. I found the film to be a rich source of analysis that focuses on the emotional and embodied appeals made by interview participants.

Overall, I focus on these qualitative methods in pursuing my research questions to gain a deeper understanding of the lived experiences of recovery from the Camp Fire. While my scope is limited, I still find the insights gained through interviews, the documentary, and selected texts to be revealing in the emotional and temporal aspects of wildfire recovery. Through this study, I aim to offer an alternative snapshot into areas less studied or considered in disaster research.

Review of the Literature

My research primarily draws on feminist geography, political ecology, and environmental justice literatures. These bodies of literature work to address power and inequalities, naturalized binaries and scale with more recent interventions addressing issues of care, affect and embodiment (Derickson, Dowler, Laliberte, 2010; Ahmed, 2013; Robbins, 2015; Bolin and

Kurtz, 2018). Political ecology provides a framework within which to understand entangled environmental, economic, and social processes within historic structures (Robbins, 2015). I build on these literatures by bridging feminist geography and environmental justice frameworks to investigate how recovery and rebuilding efforts reveal the disparities pre- and post-wildfire and ask how the burdens of a wildfire, including emotion, disproportionately impact vulnerable populations. Feminist theory and political ecology research explores various social, environmental, and political connections that are not always visible through interrogating how certain frameworks are expressed as natural but are, in fact, already entangled in expressions of power (Davis, 2011; Robbins, 2015; Sultana, 2020). Environmental justice literature addresses the extreme and everyday ways environmental impacts have disproportionate effects on people of color and in lower-class areas (Pulido, 1996).

I will add to these literatures through my focus on emotional and temporal vulnerability and well-being that are enmeshed in disaster response and recovery, and the differential impact on populations in response to the Camp Fire. Environmental justice approaches and hazards literature have been used to show how preexisting inequalities endure and deepen through natural disasters (Collins, 2008; Reid, 2013; Davies et al, 2018; Bolin and Kurtz, 2018). Likewise, my investigation illustrates the unique ways wildfires reveal and reproduce various inequalities through uneven temporal impacts. Using temporality as a framework allows for a better investigation into the embodied and multiple ways in which recovery from a natural disaster is experienced which impacts orientations towards different futures. I pull from these three bodies of literature throughout my thesis to discuss temporality, deservingness, sense of place, emotion, and recovery as it relates to wildfires in California. In addition, I introduce a

conceptual framework of vulnerability that offers alternative approaches to understand how vulnerability is produced and experienced within wildfire recovery.

The environmental justice (EJ) movement was born out of a response to acts of environmental racism that has historically taken form as purposeful increased material exposure to toxic waste and lack of access to environmental resources (Pulido, 1996). EJ considers the extreme and everyday ways that environmental racism works on majority Black communities and other communities of color and in low-income areas. An environmental justice approach is needed in analyzing disaster response and recovery, especially when focusing on differences in temporality, vulnerability, and precarity across race, class, and gendered lines. However, while many residents in Butte County have a lower socioeconomic status compared to California state averages[4], it is a majority white county. And while I utilize an EJ approach in a majority white region, I do not want to minimize EJ's central project in addressing environmental racism. Laura Pulido critiques environmental justice frameworks that have been utilized through only considering class dynamics in ways that deny or minimize the existence of racism (Pulido, 1996: 146). Racism and classism are both important analytics to consider in environmental justice work, but often the outcomes of environmental classism are informed through racialized logics and policies. Within the context of the United States, many outcomes of environmental racism and classism are not always easily located as individual decisions (although often can be traced in these ways) but are consequences of policy formations that are born out of and uphold racialized logics of white supremacy (Pulido, 2000). Ultimately, Laura Pulido argues for a better understanding of racism in general in order to better understand environmental racism which may also result in environmental classism and should not be considered independently from the

[4] Retrieved from https://www.census.gov/quickfacts/fact/table/buttecountycalifornia,CA/PST045218

logics of racism in the US. With the Camp Fire in Butte County as my main case study for this research, I pull from environmental justice scholars in my analysis of vulnerability and temporalities to illuminate how state and federal level response and recovery efforts still maintain preexisting social inequalities that are in part produced through racialized and classed legal and policy frameworks.

Framing Vulnerability, Temporal and Emotional

This framework explores vulnerability as a spatial and temporal phenomenon relationally produced through social, political, and historical processes, that resists constructions of the individual or which identify vulnerability as an inherent quality found in a person or group (Watts and Bohle, 1993; Cutter et al, 2003; Rice et al, 2015; Winkler, 2016; Bolin and Kurtz; 2018). Disasters, such as wildfires, and state and federal response to these disasters produce vulnerable conditions which are predicated on preexisting conditions and inequalities (Reid, 2013; Winkler, 2016; Bolin and Kurtz, 2018). Vulnerability to environmental hazards, such as wildfires and other natural disasters, is generally defined as the potential for loss and varies spatially and temporally (Cutter et al, 2003). Vulnerability is predicated on past social inequalities, exacerbated through wildfire events that then persist into the future, impacting health and well-being. There is a relative shared vulnerability during the wildfire event itself, meaning everyone in the immediate area experiences some aspects of the wildfire, such as smoke and ash, evacuation, or more severe impacts. Even these immediate impacts might be experienced quite differently depending on preexisting vulnerabilities and inequalities, for example having access to a car for mobility, being able to access air-filtered spaces, or having strong connections to the community. But there is a differential vulnerability based on social

inequalities prior to the fire which are reproduced and reconfigured after the fire. While some groups are situated in a position of quick recovery and minimal impact, others are not and must navigate wildfire impacts well beyond the event itself, producing different temporalities for experiencing the disaster. Vulnerability is extended through persisting precarities, environmental and health impacts, loss of home and livelihood, and emotional distress which generates different experiences and temporalities of the disaster. This framework highlights the importance of understanding how social difference works to produce different outcomes in extreme and everyday ways during the experience of a natural disaster and its aftermath (Bolin and Kurtz, 2018).

While the material and physical aspects of health and vulnerability are important to attend to, for my research I focus on temporal and emotional vulnerability and assess material and physical aspects through secondary data sources. I utilize literature on solastalgia to discuss emotional and place-based impacts post disaster. Solastalgia is a form of place-based distress, that has been theorized as an affective response, ontological trauma, and temporal rupture, in response to radical changes to environments that result in mental and emotional distress (Warsini, 2014; Albrecht, 2007; Asklund and Bunn, 2018).

Vulnerability is taken up in multiple ways across the field of geography and the social sciences. Broadly, vulnerability appears in 3 main forms: policy and practice mechanisms (plays out in interventions); as a cultural trope or a way to think about problems within an unequal society; or as a robust concept to facilitate social and political research analysis (Brown et al, 2017). Brown highlights how "the use of vulnerability is often normative, implying deviation from usually undefined standards of life or behavior" which has resulted in debates and

narratives that position some as deserving victim and others as undeserving deviant (Brown et al, 2017: 498).

The purpose of this framework is to highlight alternative ways of thinking about how conditions of vulnerability are experienced and produced. This framework pushes back against narratives that equate vulnerability to victimhood, generating stigma and notions of deservingness and undeservingness. With a focus on temporal vulnerabilities, this framework critically complicates normative ideas of disaster recovery that is based on neoliberal social policy that requires a process of legitimation based on an assumed middle-class status, which has felt consequences for those navigating recovery for longer durations of time (Reid, 2013).

The scholars that produce the three arguments I pull from take different approaches to understanding the landscapes of vulnerability. While these approaches conceptualize vulnerability differently, they intersect in some keyways and my perspective builds on these intersections. First, vulnerability is a spatial and temporal phenomenon occurring within a specific context (Watts and Bohle, 1993; Ruwanpura, 2008; Winkler, 2016). Second, vulnerability should not be an assumed inherent characteristic within a person or population, but the conditions of vulnerability should be interrogated to gain a better understanding of the social and political structures with historical or geographical significance that may be producing those conditions (Watts and Bohle, 1993; Bolin and Kurtz, 2018). Vulnerability indices are often used to map vulnerable areas, but this mapping often erases the historical, social, and political processes that led to an area or population being defined as vulnerable to begin with, which often reify racialized inequalities and stigma around experiences of vulnerability. Third, vulnerability is complex and efforts to understand the conditions of vulnerability should not simplify their complexity which may result in reproducing or worsening these conditions (Winkler, 2016).

Embracing the complex nature of vulnerability requires consideration of different formations of knowledge alongside scientific knowledge, which requires a critical examination of how power works to produce hierarchies of knowledge (Lave, 2012; Rice et al, 2015; Winkler, 2016). And last, emotional impacts of disaster and recovery are deeply tied to material aspects of vulnerability, economic precarity, and should be continually considered in efforts of long-term recovery efforts post-disaster (Warsini et al, 2014; Eisenman et al, 2015; Asklund and Bunn, 2018).

Synoptic climatologist Julie Winkler, in her 2016 article "Embracing Complexity and Uncertainty", makes a compelling argument for the necessity of including other approaches to understanding the impacts of climate change in order to make better decisions regarding adaption to mitigate climate change. She approaches vulnerability through the understanding that current dominant methods of climate change modeling, such as vulnerability modeling, fail to capture the complex and uncertain nature of climate impacts on vulnerable groups. She argues that there are limitations in how social challenges can be considered with only "top-down" approaches. And as climate scientists and geographers, it is our responsibility to better communicate these complexities and uncertainties to vulnerable populations and to those in decision making roles in order to assist in the making of decisions when faced with uncertainty. She calls for a plurality of approaches in order to embrace the complexity and uncertainty within climate change research. This plurality includes the "top-down" (as impact analysis) as well as "bottom-up" (more focused on vulnerability and lived conditions) approaches.

Winkler engages with vulnerability in terms of social factors that produces experiences of vulnerability in physical environments. Social factors in physical environments arise out of different contexts and effect adaptation strategies in different ways. Therefore, it is important to

embrace the complexity and uncertainty in this work as an ethical obligation in order to not obscure real risks and impacts that vulnerable populations may face (Winkler, 2016: 1419). She argues that the uncertainties and complexities inherent in climate change research and communication, which are often eliminated because of their lack of clarity, do not equate to lack of information. Instead, these moments of uncertainty and complexity are legitimate forms of information that should be carefully considered, instead of disregarded or eliminated. Other scholars have discussed how often socially created vulnerabilities are ignored due to issues attempting to quantify them (Cutter et al, 2003). Winkler proposes that climate change researchers need to let go of their attachment to neat modeling systems in order to provide more nuanced projections with flexibility and multiplicity, ultimately to embrace ranges of uncertainty instead of working to eliminate or limit these ranges (Winkler, 2016: 1423). While my research does not directly address climate change, I amongst others, argue that the increase in severity and frequency in wildfires is in part due to climate change and shouldn't be considered as wholly separate (Simon, 2018; Davis, 1995).

Geographers Michael Watts and Hans Bohle, in their 1993 article "The Space of Vulnerability: the causal structure of hunger and famine", focus on vulnerability to famine and food insecurity. They locate the main cause of vulnerability to famine as poverty and then work to analyze the structure of poverty itself. While they argue that properties of a system give rise to vulnerability, they emphasize that vulnerability is fundamentally relational and that the space and shape of vulnerability is given by social relations. Throughout their article, they offer many definitions of vulnerability, but what I find most helpful in articulating my framework is how social difference and poverty (as structural formations) are the main factors informing how vulnerability is experienced differently within a group over time. Through this framing they

approach their analysis of vulnerability. Understanding the specific economic, political, and structural elements exist simultaneously, co-constituting each other, working together to produce the conditions of vulnerability, such as a lack of access to food or resources, state's inability to allocate resources evenly, or the ability for the most vulnerable to recover from famine over time. Ultimately, they propose more intensive research, or what they call the "ethnography and phenomenology of famine" in order to trace the connections between structures (such as state response, preexisting food systems and distribution, uneven access to resources), the mechanisms of vulnerability (such as poverty), and the actual conditions of an event (such as famine) in order to understand the specific context of the social space of vulnerability (Watts and Bohle, 1993: 64).

Last, geographers Jennifer Rice, Brian Burke, and Nik Heynen, in their 2015 article "Knowing Climate Change, Embodying Climate Praxis", take a different approach to vulnerability through critiquing scientific hegemony and arguing for the consideration and inclusion of other forms of knowledge in order to demonstrate the unique connections between climate change and cultural lifeways. They make a compelling case through emphasizing the importance of place-based knowledge or embodied knowledge in order to highlight the different experiential ways of knowing climate change. Similar to Winkler, they argue for the inclusion, not replacement, of these forms of knowledge alongside other scientific forms of knowledge. They outline how this formation of knowledge, experiential and focused on place, will work to inform more just and equitable socioecological transformations within different social and environmental contexts that may uphold cultural values, even if it is not scientifically accurate. With their specific focus in Appalachia, they name the most vulnerable populations as older, white, and rural groups who are year-round residents. Through their critique of scientific

hegemony, they highlight that communities whose knowledge is often dismissed or marginalized over scientific claims to climate knowledge are often the most vulnerable to climate change. I think this apt comparison speaks well to Winkler's argument on how dominant modes of climate modeling may work to worsen conditions of vulnerability and to Watts and Bohle's argument that vulnerability is structurally produced.

Rice, Heynen, and Burke propose democratizing climate knowledge in order to include other formations of knowledge which opens up possibilities of addressing climate change in more just and equitable ways. They argue that these experiential forms of knowledge on climate change may not be scientifically sound or easily incorporated into other dominant modes of climate change research, but they have capacity to inform policy on development or zoning in order to slow the processes that produce experiences of climate change (named by residents as suburbia and development). They discuss how "many residents of southern Appalachia understand, and ultimately respond to, climate change through embodied experiences of dwelling in local places—places that are simultaneously social and natural, that are culturally and historically meaningful, and that are seen as embedded in interconnected, regional socioecological systems." (Rice et al, 2015: 257). They emphasize how ignoring forms of experiential knowledge produces a research dynamic where the researcher is working on the community rather than with them. Similar to Winkler, Watts and Bohle's arguments, when considering how people experience and navigate vulnerable conditions within the context of natural disasters or climate change, different approaches are needed in understanding the lived experiences of navigating recovery.

Regarding the Camp Fire, those who navigate recovery for longer periods of time tend to have experienced heightened precarious conditions before the fire itself. In order to understand

why certain groups experience heightened degrees of vulnerability during and after a wildfire, it is important to interrogate the historical and political circumstances that produce the conditions of vulnerability as well as incorporate the complexities and alternative knowledges, such as ethnographic, place specific, or embodied, with more dominant ways of analyzing vulnerability. While emotional vulnerability is not easily addressed in vulnerability modeling, it is important to consider alongside material impacts due to disasters. Addressing vulnerability, as a spatial and temporal phenomenon that is relationally produced through historical social and political processes and entangled in emotional well-being requires a different mode of analysis that resists locating vulnerability as an inherent or defining quality within a group which then allows for more careful and critical analysis of the lived experiences of those navigating recovery.

Overview of Chapters

Overall, considering the framing of vulnerability outlined above, I argue for a more complicated temporal understanding of wildfire recovery. One that highlights the emotional impacts enmeshed within disruptions to our sense of place and the need to address uneven temporalities of wildfire recovery. With a focus on the 2018 Camp Fire in Butte County, I divide this thesis into two chapters. In Chapter 1, I use temporality as a mode of analysis and pull from interview data and secondary literature to assess the temporalities of wildfires, vulnerability, and deservingness. Interrogating the temporalities of disasters, such as wildfires, demonstrate how preexisting inequalities are often exacerbated through the disaster and the subsequent recovery efforts. Additionally, I highlight the processes that have informed the worsening conditions of California wildfire seasons over time. I draw examples out from interviews to emphasize how formations or experiences of time impact how certain preconditions of specific populations, like

houselessness or being low income, shape notions of deservingness and how these populations are able to navigate recovery.

Chapter 2 focuses on emotion and sense of place through drawing on interview data, film analysis of Fire in Paradise, and solastalgia literature. After a brief overview of solastalgia literature, I introduce a discussion on community recovery and the ways a sense of place is more than a physical environment but is also tied to social networks, cultural ways of life, and day to day lived experiences, which may act as exclusionary in some circumstances. I focus on the Netflix documentary Fire in Paradise (2019) to highlight the emotional narratives surrounding the Camp Fire evacuation. The final sections of this chapter focus on how sense of self is constructed relationally in place. Identifying that environmental distress disrupts our lived and imagined realities suggests that the trauma of losing a sense of place creates a temporal rupture that generates dissonance between memories of the past, present realities, and orientations to the future, disrupting notions of our sense of self in place (Asklund and Bunn, 2018). Through this engagement with emotion and place, temporality again becomes a poignant mode of analysis to elucidate how the emotional impacts of recovery are deeply entangled in the material aspects of recovery. Temporality as well as emotion and sense of place emerge as important and intersecting modes of analysis to gain a deeper understanding of the lived experiences during short and long-term efforts of wildfire recovery.

CHAPTER 1:
"For some people who survived the fire, their life ended on November 8th"
The Uneven Temporalities of Disasters

In this chapter, I use temporality as an important analytical approach to analyze how past, present, and future are experienced and imagined in relation to the disruptive effects of wildfires and the recovery efforts that follow them. Temporality is more than uniform or clock time, but an embodied sense of time entangled in power relations (Sharma, 2013). Uniquely, this approach allows me to look at the politics of space and time, not as separate entities but as co-constituting each other, within the context of wildfire recovery (Massey, 2005: 18). Wildfires are not temporally isolated events, but instead a culmination of multiscalar processes, such as global climate change, statewide drought and the development of the WUI in California, that affect how people understand time within place, and whose temporal effects differ widely for differently situated people. While we can clearly state when a fire began and ended, the effects felt from the fire are not the same for everybody. Some people are left navigating loss or displacement long after the fire ended, making the impacts of fire remain present in their everyday.

There are many ways of thinking about time in relation to wildfires: as a temporal marker for a region; worsening conditions of wildfires over time in terms of frequency and severity; the experience of time during the fire itself, such as the evacuation, sheltering, and waiting to return; and the unevenness in the duration of the fire's effects in terms of social and economic recovery and health impacts, which correlates with various formations of vulnerability.

In this chapter, I focus on the production of worsening wildfires and the relationship between shifting characterizations of deservingness and durations of recovery. The experiences of poverty and homelessness were identified as the starting points informing notions of deservingness to resources and aid which impacted and produced uneven temporalities of recovery.

Using cultural theorist Sarah Sharma's theory on the uneven politics of temporality (2013: 4), I consider the possibilities of using temporality as a way to trace how power relations play out in time. Similarly, time itself is not natural but "a socially constructed medium which power relations are made." (Reid, 2013: 754). Not everyone within the space of a wildfire will experience the same time frame of recovery and this is due to preexisting inequalities produced through uneven power relations. I use sociologist Megan Reid's idea of temporal domination as a form of sociotemporal marginalization to analyze shifting notions of deservingness over time. In my research, those who experienced homelessness previous to the fire, used drugs, or had a lower socioeconomic status, over time, were designated as less deserving of resourcing and aid post disaster (See Haas, 2017 or Holmes, 2020 for more on the intersections between power, deservingness, and temporality). I link vulnerability and recovery to temporality which necessitates expanding the time frames associated with wildfire events to consider past social and political processes that will inform how recovery and subsequent wildfires may affect those in vulnerable areas or positions over time.

Using temporality as an analytical approach allows me to see two things that I miss otherwise. First, an understanding of how the wildfire event itself is not an event fixed in time but instead produced through ongoing complex environmental, social, and political processes. A wildfire may be thought of as a natural ecological process, with many California ecosystems

reliant on fire to thrive, but in recent decades their severity and frequency have increased over time due to human activity and development which have deep social and political implications (Davis, 1995; Syphard et al, 2007; Simon, 2018). Second, using temporality as an analytical approach, I gain a greater understanding of how preexisting conditions impact how communities navigate recovery. Through my interviews and research, an idea of two towns in one continued to emerge through different perspectives or positions within the community of Paradise. This idea of two towns in one, often defined through class differences, became more visible after the Camp Fire, revealing the structural inequalities that went mostly uninterrogated before the fire itself. Temporality is a way to see how ecological, economic, social, cultural, and political dynamics are all entangled across space and time and how power impacts or works within these entanglements. Temporality as an analytical approach requires the researcher to resist identifying vulnerability as an inherent quality within a group or as an individual failing by considering vulnerability as a process which offers perspectives on the different effects of wildfires that affect experiences of time and the durations of recovery. This approach also allows for an interrogation of the emotional impacts of disaster, which is tied to housing, livelihood, precarity, and physical health.

Similar to Megan Reid's (2013) discourse analysis, to identify temporality, I attended to moments when research participants made specific references to time or a timeline (such as years, 6 months, over time), contrasted present conditions to the past, and made reference to structures or causes that led to worsening wildfire conditions. I considered their appeals to come back and to not forget, and how they discussed recovery efforts, and even the possibility of never recovering in relation to their ideas about the future.

Temporalities of California Wildfires

Many scholars have argued that natural disasters do not happen in an ahistorical or politically neutral space which produces different temporalities of the disaster. Natural disasters are in fact disasters due to social and political processes. Geographer Kanchana Ruwanpura describes how the 2004 tsunami in Sri Lanka "brought to the forefront preexisting inequalities, showing up complexities in the temporality of disasters." (Ruwanpura, 2008: 325) Ruwanpura demonstrates the importance of considering how the experience of a disaster is extended for particular populations. She looks at how the initial impacts of the disaster and subsequent recovery efforts have disproportionately negative impacts on women due to uneven development, the ethnonationalist war, and social exclusion. Social ecologists, Yoosun Park and Joshua Miller outline how natural disasters occur within a specific complex social terrain constituted by political and social factors (Park and Miller, 2008: 12). With a focus on Hurricane Katrina, they discuss how the immediate effects of a disaster and the long-term recovery processes are mediated by socioeconomic structures that existed before the disaster itself (Park and Miller, 2008: 13).

In my research, I find it is important to consider the temporality of the disaster and the subsequent recovery to understand how vulnerability and precarity are maintained, reconfigured, or produced in post disaster recovery efforts. After the Camp Fire, many were displaced or lost their homes. Close to 52,000 residents were evacuated from this fire, with many living in shelters throughout the county (McBride et al, 2018). Approximately 14,000 homes burnt down leaving many without anywhere to return. For those with strong ties to community and family or with a higher socioeconomic status, the ability to leave the shelter and relocate was relatively easy (Personal Interview with Casey Hatcher, 5th Sept 2019 and Greg Shafer, 17th July 2019). For

some this was not an option and were left to rely on state and federal aid for longer amounts of time. This brings into question the idea of who deserves to be supported by government or community programs and how this idea of deservingness has shifted over the course of disaster recovery after the Camp Fire.

Within the context of California wildfires, many of my interview subjects, especially Cal Fire firefighters, emphasized how wildfires have continually worsened over the years and how this impacts how they envision the future. Sean Norman (Personal Interview 18th July 2019, CalFire Captain) and Tony Brownell (Personal Interview 22nd Aug 2019, CalFire Battalion Chief) both describe how wildfires have continued to worsen due to the scale as well as the speed of the fires burning. Tony Brownell described what was once considered a large fire is now considered a "bread and butter fire", meaning a typical or smaller scale fire. Neither fire fighter would directly engage in discussions about climate change, but when asked why they thought the fires burned so differently now they described changing weather conditions, such as how the night time humidity stays low so they never get a break or wind patterns have become more unpredictable, how longer droughts have killed trees creating larger fuel loads, how people build closer to the foothills, the type of building materials used are more combustible, or the complications in implementing prescribed burns and thinning trees in the forest. But mainly, emphasis was put on how the fuel load and weather has changed leading to worsening fire conditions. I didn't push the topic of climate change with any of my research participants and assumed participants avoided this topic due to how climate change has become increasingly politicized within the US (Goldberg et al, 2019).

Both firefighters expressed sentiments about the inevitability of the Camp Fire. Sean Norman expressed that while they could never expect what had happened, they weren't

surprised. While Tony Brownell expressed that they always knew Paradise would burn at some point, but they didn't think it would all burn in 2 hours. The county and town had planned for many years and relied on basic evacuation strategies such as contraflow[5] and evacuating by zone. But Paradise burning in 2 hours made a safe and effective evacuation near impossible, which attributed to the high death toll (Personal Interview with Cindi Dunsmoor Aug 29th, 2019, Jody Jones July 17th, 2019, Tony Brownell and Sean Norman). These feelings surrounding expectations or sentiments on the Camp Fire hint at how a longer history of drought, development, and land management work to produce conditions of larger fires, even if the Camp Fire was completely unprecedented.

When I asked each firefighter what they thought about the future of California amidst worsening wildfires their answers stood in stark contrast to the responses I received by other research participants. Tony Brownell described the future of California as a black dot on a map while Sean Norman described it as complete devastation. They both discussed how hard that first day of the Camp Fire was and lamented how quickly people forget about how devastating a previous wildfire was as another megafire begins. Other research participants often replied to this question about the future with positive outlooks, invoking ideas of resilient communities that come back together. While these participants are deeply involved in processes of recovery, some even lost their own homes in the fire, they aren't involved in the same way Tony and Sean are. As firefighters they have seen in a unique way how wildfires in California have worsened and as Tony describes PTSD has become a bigger issue in recent years for CalFire firefighters (For more on this see recent Doctoral Dissertation by Capper, 2020).

[5] Contraflow is when all traffic lanes move in in one direction as an evacuation route, or away from the disaster.

Considering temporalities of wildfire and recovery is an important way to understand how the impacts from wildfires effect people differently. Urban geographer Mike Davis discusses in great detail how fires in California have been productive in revealing and producing class differences due to how the state subsidizes development and insurance for certain areas and how resources are allocated differently to fire departments across the state (Davis, 1995). While wildfires in California play a significant role in the ecological landscape, they have continually worsened, having more severe impacts on communities throughout the state (Davis, 1995; Syphard, 2007; Simon, 2018). There have been two responses to the assertion of wildfires worsening that came through in my interviews. Either people state that there have always been wildfires and some years are just worse than others or there is an acknowledgement of the wildfires becoming more severe over the years. Even with acknowledging this gradual change, there is a normalizing element that works to reify the "wild" in wildfires, removing external factors from the production of worsening wildfires and positioning wildfires as an inevitable part of the landscape. A recent argument highlights how wildfires in California have been continually depoliticized which minimizes the ability to address the root causes of these fires (Simon, 2018). Geographer G.L. Simon analyzes how wildfires in California, even as they worsen, are continually normalized in state government and media discussions which draws attention away from the social and political components which have produced the worsening conditions of wildfires. He emphasizes that wildfires are disasters because of human activity, naming wild urban interface development, land management, and anthropogenic climate change as main factors. He argues that the depoliticization of wildfires have stripped the issue of some of the politically important foundations in which the fire regime in California has worsened. This depoliticization is also evident in the reluctance of my interview participants to discuss climate

change as a major factor informing worsening wildfires. Ultimately, he calls for more attention to be paid to the structural causes that have informed worsening wildfires in California in order to better address and mitigate the devastation from these fires (Simon, 2018: 175). A necessary element of these discussions is how configurations of power, within political and social realms, produce different impacts based on a person's or population's positionality.

When considering the risks to wildfires, there are three root causes that inform hazard vulnerability: increased fire regimes, increased development, and preexisting inequalities (Collins, 2008). These preexisting inequalities are a major factor that produces differential vulnerability. Additionally, studies have analyzed the differential vulnerabilities of communities of color to wildfire hazards. These fires affect many and have huge economic impacts, but like any environmental disaster the impacts are felt more intensely by socio-economically vulnerable communities (Davies et al, 2018). From a hazards and disaster vulnerability approach, Bolin and Kurtz discuss the importance of qualitative approaches in understanding how difference works, such as race, ethnicity, and class, in disaster vulnerability and recovery responses. The authors focus on environmental justice literature to highlight how its approaches may be used to improve disaster research, especially in the areas addressing race, class, and ethnic inequalities (Bolin and Kurtz, 2018: 126). They argue that disaster research has focused on extreme events historically but needs to take a different temporal approach to consider the hazards of everyday life on a variety of scales. This environmental justice approach asks the researchers to consider who is vulnerable to a natural disaster and who remains vulnerable after the disaster, complicating notions of recovery and aiming to illuminate how difference plays out in disaster and recovery processes. They conclude by calling for new research that investigates how social inequalities as well as social and environmental policies work to put people and places at risk. Utilizing a

vulnerability framework, as discussed by Bolin and Kurtz, supports the importance in understanding how difference works in disaster vulnerability and recovery, which works to produce different temporalities of disasters.

Temporal Domination and the Relationship between Deservingness and Time

Preexisting inequalities enmeshed within structures of poverty impact how the wildfire is experienced, including the lasting impacts that remain after a disaster. These conditions of poverty are produced predominately across class differences and are deeply enmeshed within racial and gendered differences (Cutter et al, 2003; Davies et al, 2018; Anderson and Sugg, 2019). In my research, poverty and houselessness were identified as major factors impacting access to resources and aid, diminishing the ability to recover. Highlighting temporalities of recovery demonstrate how social difference before the event impacts how one can navigate recovery after the event, what services are available and, importantly, for how long. Recovery is not linear and will not look the same across different groups. Recovery can take longer depending on how one can navigate resources and aid. Using temporality as a mode of analysis allows for understanding why this is so and how this is in relation to existing power dynamics. Revealed through interviews, much expectation is placed on the individual's ability to bounce back in a short time frame and therefore assistance to help them recover is offered as short-term aid. Instead of putting the responsibility on the individual's ability to "bounce back", which treats the fire as a temporary disruption rather than a long-lasting impact, it allows us to see how disaster response systems and structures of class and poverty are upheld by exclusionary neoliberal social policy that create barriers for those perceived as undeserving or illegitimate. Temporality is a way to interrogate how power works to produce different timelines of recovery.

But time itself actually becomes a tool during recovery to passively deny resources to those who don't fit within the normative frameworks required in order to receive aid and support, which in effect maintains or worsens preexisting inequalities.

Sociologist Megan Reid did an in-depth interview analysis with a wide array of people who were impacted and displaced by Hurricane Katrina (Reid, 2013). Specifically, she focused on different people's experience navigating FEMA assistance. She argues that social stratification is impacted by sociotemporal marginalization of the poor in post disaster recovery response and support. She calls this "temporal domination." Federal and State disaster aid require that those in need of resources during immediate and long-term recovery must be seen as legitimate and deserving of aid. This process of legitimation upholds normative cultural understandings of what constitutes a family or household. Those who do not fit within heteronormative nuclear family structures or within ideas of the "middle-class lifestyle", which is inherently gendered and racialized, are often excluded from receiving immediate aid and must go through arduous processes of becoming legitimized and seen as deserving of aid (Reid, 2013: 743). She calls this period of waiting another form of temporal domination. This often has disproportionate impacts on lower class groups and communities of color due to racist and classed logics and social policies (Reid, 2013: 745). She summarizes:

> The assumption of a middle-class habitus that conforms to market norms (for the present analysis, a single nuclear family household and personal financial safety net) justifies limited assistance by shifting the blame for lack of assistance from an unwilling or unable government to a "deviant" individual who hypothetically would be able to get assistance if s/he would just comply with normative (middle-class) social expectations. (Reid, 2013: 745)

This idea of deserving versus undeserving that is embedded in neoliberal social policy can generate different temporalities of disaster recovery for populations that experience

heightened levels of vulnerability to the disaster in the first place. I find Reid's argument and analysis to be helpful in detailing how temporality plays a role in not only illuminating how recovery from disasters can take longer for certain populations but how the extended and uneven temporalities actually become a form of marginalization during short and long-term disaster recovery.

In my interview with Casey Hatcher (Personal Interview 5th Sept 2019, Deputy Chief Administration Officer and Recovery Coordinator), she described how inevitably people 'fell through the cracks' when navigating FEMA assistance. She shared a story of someone who moved to care for their grandparents, both of which had passed away before the Camp Fire. This person hadn't transferred the house deed into their name and after the Camp Fire was unable to access any FEMA assistance. Often, in order to be legible to receive FEMA assistance you need to be a homeowner or reflected on a legal housing document (such as a lease). Similar instances for renters or people living in shared housing, like having housemates, were unable to access aid. Often only one person, in a house with housemates or a nonnuclear family arrangement, can claim aid for a specific address with others living at that same address being denied aid (Reid, 2013). Casey Hatcher said she worked to try and find these people philanthropic support since they didn't qualify for state and federal aid but explained the necessity for FEMA to have their system in place, to avoid people from taking advantage of these resources. This is a similar narrative that emerged from the shelters and that had disproportionate effects on lower class groups. Sean Norman shared a more generalized story about recovery that focused on rural and under resourced groups, he stated "for some people who survived the fire, their life ended on November 8th", inferring the impossibility of a full recovery for some. He elucidated through explaining that some people who live in rural areas lost their homes and businesses and that

recovering those things would never be possible, stating that the "mechanic who worked out of his garage would have to get a job working for Home Depot for minimum wage" and that he'll never be able to regain his independence and stability he had before the fire.

In my interviews, it was conveyed that the needs of certain groups (homeless, renters, low income, under resourced) over time were continually contested or denied. There was a shift in who was deserving of aid, beginning with denying preexisting homeless populations access to shelters that was then extended to other groups as time went on. As recovery progressed, those who were still in need of immediate aid, such as sheltering, were seen as continually less deserving based on how long it was taking them to recover and their reliance on outside aid and resources.

Social theorist Mel Y. Chen makes a critical intervention into environmental justice literature with a focus on how structures of racial capitalism led to events of environmental racism which generates certain formations of affect and embodiment. Chen articulates their animacy theory which, through racialized, gendered, and classed logics, positions some bodies as already contaminated or toxic therefore mobilizing certain public affect that attempts to normalize events of environmental racism (Chen, 2012: 167). For my argument, shifting logics of deservingness follows Chen's animacy hierarchy, informing the shifts in how deservingness is continually redefined during processes of recovery. There is a way in which the failure of certain groups to recover from a disaster, such as being lower class or homeless, is normalized as an individual failing or innate trait. Positioning some individuals as deviant or unable to recover within an expected amount of time allows the state or FEMA to displace the responsibility from themselves onto the individual, normalizing the failure of not recovering as a personal circumstance as opposed to inefficacy of state responses.

Greg Shafer (Personal Interview 17th July 2019, Behavior Health Youth Counselor) described to me how, before the fire, Paradise could be thought of as two towns: one defined as a bedroom community with majority middle-class and retired people, the other living in deep poverty and isolation. He shared that many of those who died in the Camp Fire were not only elderly but died because they were unconnected to the community and lived in isolation. He described how these two towns in one were in some ways normalized or uninterrogated, but the Camp Fire revealed the social elements of the town that had been culminating for years up to the point of the fire. Greg described how shelters became the focus of determining some deserving and others not. He emphasized how this shifted through time based on the preconditions of those deemed undeserving. He highlighted how this began almost immediately after the Camp Fire to exclude the homeless population from receiving aid or services from shelters. Because they were homeless before the Camp Fire, and not because of it, the aid and services provided by the county and Red Cross were denied. He described how a certain type of paranoia became common amongst shelter volunteers, many were worried that the homeless would "sneak in and take advantage" which ultimately led to shelters hiring security teams to keep the homeless out. This line of legitimate fire victims versus illegitimate continued to shift over time. He outlined how the line of legitimacy shifted based on certain evacuees who could "get it together" and others who struggled to leave shelters or access aid. Those who weren't able to bounce back quick enough, as he described, experienced a similar sort of othering that shifted them into the illegitimate or undeserving category. He stated there was a very real discrimination of the poor demonstrated through how certain groups were treated in shelters, with those seen as unwanted or undesirable kicked out without any due process or resources.

Similarly, Scott Kennelly (Personal Interview 6th September 2019, Interim Director of Behavioral Health) and Don Taylor (Personal Interview 6th September 2019, Assistant Director of Behavioral Health) described how it was hard witnessing people in neighboring communities over time going from welcoming fire victims to blaming them for not getting stable housing or jobs quick enough. This attitude often stigmatized those who were in more precarious economic or housing conditions before the fire. They also commented on the exclusion of the homeless population from shelters, outlining how fire victims who lost their houses were seen as more deserving than other homeless people which generated a division amongst county departments on where and how to allocate resources. They even stated that renters that didn't have the means or resources to navigate recovery with ease became marginalized after a couple months with the attitude "ok we've given you some things you should be ok now."[6] These stories detail how the preconditions of certain people before the fire have deep implications in how they experience and navigate recovery after the fire, not only in the need for additional resources for longer timelines but also how easily the need of additional resources due to previous socioeconomic conditions becomes contested. Regarding some as undeserving ultimately worsens the conditions for those groups, exacerbating the duration of recovery or even denying the possibility of recovery at all.

Alternatively, several interviewees either refused any knowledge of disparate aid access or hinted at undesirable situations when it came to sheltering. Jody Jones (Personal Interview July 17th, 2019, Mayor of Paradise), when asked about various aspects of recovery, claimed she did not know of any differential treatment of the homeless population or issues surrounding sheltering immediately after the Camp Fire. She denied concerns surrounding potential health

[6] Paraphrased from Scott Kennelly

risks due to the damage to the water systems or the removal of hazardous debris. In fact, when asked about the future of Paradise she exclaimed “The future is bright”, and described how she was standing in front of the first home that had been rebuilt, excited for the first family to move in. I found her narrative of rebuilding and the future to be interesting, in part due to the fact that she was the media contact for Paradise and the Camp Fire. As the primary media contact, she fills the role of producing and promoting dominant narratives of recovery in Paradise. Her denial and overwhelming positive outlook strategically evaded how dominant recovery and rebuilding narratives are actively leaving out many in her vision of the future. What is also important to note here is that Jody lost her home in the Camp Fire, in fact all Paradise Council members did. In her interview she did express devastation over this loss but also found pride in the fact that each Council member, including herself, stayed in the area to participate in the efforts of recovery and rebuilding. There is a certain strategy in her remaining positive, as a way to demonstrate hope and resilience for her own well-being and in support of her community, but this overwhelming positive outlook does work to obfuscate certain aspects of recovery and normalizes the narratives that project notions of undeservingness onto those who still rely on aid and resources.

In another interview with Cindi Dunsmoor (Personal Interview Aug 29th, 2019, Chief Administration Officer), she briefly mentioned folks utilizing shelters and resources when they weren’t supposed to, inferring the shelters were meant for fire victims, or those who had lost their home due to the fire. Oddly, at the end of the interview she mentioned the onerous task of managing donated supplies, something she referred to as a disaster in itself, which necessitates asking why resources are so closely guarded and allocated. The process and demarcation of a legitimate fire victim, while there is a surplus of supplies and those still in need of resources,

demonstrates an interesting phenomenon of deservingness that aligns with neoliberal social policy that assumes a middle-class habitus, treating those who are in need of more support as deviant or as taking advantage.

These two divergent pictures of the Camp Fire recovery, one from behavioral health workers and one from civic employees, demonstrate an important tension between dominant narratives of rebuilding versus what it looks like on the ground for everyone, signaling to narratives of rebuilding that purposefully exclude 'undesirable' or 'deviant' subjects that are deemed at fault for their conditions and therefore undeserving of aid. Similar to Megan Reid's argument, the proper fire victim upholds ideals of a good neoliberal subject, which works to deny those who are more dependent for longer periods of time on state and federal aid as less deserving over time. Similarly, political scientist Nancy Fraser has outlined how ideas of dependency have become politically pathologized to delineate deserving from undeserving (Fraser, 2013). Those who are seen as dependents are then seen as unmotivated to support themselves, reliant on the state and associated with negative connotations of 'cheating the system' or 'taking advantage' (Fraser, 2013: 84). Anthropologists, Seth Holmes and Heide Castaneda have also argued about the political work surrounding ideas of deserving and undeserving in the European refugee crisis (Holmes and Castaneda, 2016). They argue that the discourse on 'deservingness' shifts blame away from historical, political, and economic structures and instead places it on the individual. They conclude that deservingness is political work that is tied to economic structures. In my temporal analysis, I outline the need to analyze how conditions and logics of deservingness, within the context of wildfire recovery, are produced and deeply impact the temporality of the wildfire itself, creating uneven durations of recovery.

Closing Remarks

Returning to Sarah Sharma's work, understanding that temporality is a way power can be traced through time, temporality becomes an important way to frame my analysis of recovery. These excerpts from interviews begin to touch on how important it is to understand how social and political configurations produce specific conditions previous to the fire, that then inform present efforts of recovery, which impacts notions of the future and how recovery can ultimately be realized for all. Without temporality as a way to frame understandings of recovery we run the risk of reproducing the same narratives that locate some as 'undeserving' or 'taking advantage' when they are unable to 'bounce back' on their own as quickly as others. Through this analysis, Paradise as two towns in one becomes an important framing for understanding how different narratives of deserving versus undeserving are produced and embedded in the historical social and political landscape previous to the disaster. For my work, temporality as an analytical approach, demands for reflexive engagement on understanding how preexisting inequalities enmeshed in structures of poverty position some as in need of more aid post disaster. Temporal domination is an important approach to considering the uneven temporalities of disasters and subsequent recovery efforts. Having a prolonged need for resources or aid post disaster shouldn't produce stigma or punishing narratives, but instead compassionate understanding that natural disasters occur within social and political contexts and require different needs and timelines for those who rely on resources for recovery.

CHAPTER 2:
"The Grief May Come in Waves"
Emotion, Place, and Solastalgia

When the Camp Fire burned through the town of Paradise, it left a huge physical burn scar on the landscape, leaving the town unrecognizable. But beyond this there was a huge loss of life, a traumatic evacuation (detailed in the documentary A Fire in Paradise and specific interviews), and a loss in the ways of life sustained through connections to a place and a community. This chapter focuses on interrelated arguments addressing community, emotional well-being, solastalgia, and how our sense of self is constructed in place. Part of this work is returning to the previous chapter's argument and the narratives that position some as deserving over others when conceptualizing how people experience or navigate conditions of vulnerability.

After a brief overview of solastalgia literature, I begin this chapter through interrogating the role of community in recovery, as a source of resiliency and grief as well as a formation used to exclude some groups from a sense of belonging and the process of rebuilding. Through theoretical discussions and film analysis of Fire in Paradise, I argue for the need to attend to emotional impacts of a disasters which disrupts notions of what it means to be recovered as well as how emotion is entangled in the construction and disruptions to a sense of place. Using interviews, I demonstrate how solastalgia can be used as a framework to understand the long-lasting impacts of a disaster that are deeply enmeshed in emotional and material aspects of recovery. Attending to how emotion is expressed from my interviews and Fire in Paradise helps illuminate certain elements that produce a sense of place and place attachment and how

disruptions or the loss generates emotional and mental health distress, as described by solastalgia literature and the narratives of recovery from the Camp Fire. While the physical town can be rebuilt, this often won't restore the ontological home or the social and cultural networks that are enmeshed in how we form a sense of place, which are also disrupted by wildfires.

Through the previous discussions on temporality and vulnerability, emotional well-being and mental health emerge as vital components of recovery from natural disasters that are uniquely tied to a sense of place. To address the connections between emotion and place in relation to wildfires, I draw from Rice, Heynen, and Burke (2015) and Asklund and Bunn (2018) who discuss the processes of producing a sense of place. Sense of place is not just an orientation to a physical or social environment, it is also imbued with cultural meaning, social relations, and power dynamics, which often is drawn from experiences within communities (Asklund and Bunn, 2018: 19). Places are co-constituted through social and ecological processes that hold significance through cultural and historical meaning embedded in regional socioecological systems (Rice et al, 2015: 257). Theoretical discussions surrounding the concept of solastalgia have been helpful in understanding how emotions are tied to sense of place, and just as importantly disruptions to sense of place. Solastalgia is a form of place-based distress, that has been theorized as an affective response, ontological trauma, and temporal rupture, in response to radical changes to environments due to extractive industries, natural disasters, and climate change resulting in mental and emotional issues or distress (Albrecht, 2007; Warsini et al, 2014; Asklund and Bunn, 2018).

The construction and use of place as a concept within geographic thought is always situational and relational (Rose, 1993; Dowler and Sharpe, 2001, Massey, 2005, Asklund and Bunn, 2018). It has been a concept utilized in geography across many subfields since the

inception of the discipline. Geographer Doreen Massey describes place as "integrations of space and time; as spatio-temporal events", which contributes to the specificity of place (Massey, 2005: 130). Feminist conceptions of place understand these environments as interrelated and always enmeshed in power relations (Rose, 1993; Massey, 2005; Asklund and Bunn 2018). The experience of place can be multiple depending on one's own relationship to power and other cultural and political factors (Massey et al, 2009; McKittrick, 2011). There have been some notable interventions from feminist geopolitics and radical geographies that critique the exclusiveness of place and push against the political and social implications that come with place and belonging (Dowler and Sharpe, 2001; Massey et al 2009). For this chapter, I understand sense of place as formed relationally, through temporal and spatial connections predicated on interrelated social, political, and ecological dynamics and therefore implicated in experiences and ideas of community (Rice et al, 2105; Asklund and Bunn, 2018).

Environmental Impacts to the Sense of Self in Place: Discussion of Solastalgia

Understanding the link between solastalgia and disruptions to a place is a generative way to better understand the mental health or emotional distresses felt after a wildfire. Environmental philosopher Glenn Albrecht defines solastalgia as "a form of homesickness one gets when one is still at 'home'." (Albrecht, 2007: 48). Simply put, solastalgia is a form of place-based distress in response to radical changes to environments due to extractive industries, natural disasters, and climate change that result in mental and emotional issues (Albrecht, 2007; Warsini et al, 2014; Asklund and Bunn, 2018). Solastalgia emerges in response to environmental degradation but distress is in part due to how the change in environment impacts other facets informing our sense of place like social connections, day to day lived realities, or our various networks. Glenn

Albrecht introduced the term solastalgia to describe the inability to recognize one's own place any longer due to environmental degradation, generating a sense of dislocation, which can manifest as depression, substance abuse, memory loss, grief, as well as other emotional distress or mental health concerns (Albrecht, 2007). Solastalgia allows for understanding of how experiences within places, post disaster, impact our well-being which extends the experience of the disaster itself.

Further theorizations and discussions on solastalgia have highlighted the importance to apply this to impacts of natural disasters and the subsequent recovery efforts. Medical researchers, Sri Warsini, Jane Mills, and Kim Usher demonstrate how solastalgia, which was originally conceptualized in relation to direct man-made environmental degradation like mining, can and should be applied to survivors of natural disasters (Warsini et al, 2014: 87). The authors make their argument through analyzing the primary and secondary effects on residents in proximity to a volcanic eruption. They describe the importance of home and place attachment to survivors of natural disasters and found that disruptions to place attachment have negative physical and mental health impacts. They highlight the importance of considering how disruptions of home or place attachment, for survivors of natural disaster, can have negative emotional and mental health impacts in response to these disruptions which adds to survivor's burden during recovery processes (Warsini et al, 2014). They conclude by calling on health professionals to be aware of solastalgia in order to develop different strategies of support for survivors. This argument has been expanded upon by some scholars to consider the potential of community involvement in land restoration post wildfire to mitigate emotional distress or effects of solastalgia in impacted communities.

Some scholars have looked at how ecological recovery can play a significant role in addressing social elements in communities impacted by fires and how a community responds to changes in wildfire mitigation (Eisenman et al 2015; Kooistra et al, 2018). Environment and public health researchers Kooistra, Hall, Paveglio, and Pickering, in an article assessing the social dimensions of landscape recovery, interrogate the meaning of recovery for certain areas that experience wildfires. They assess how radical changes to landscape, such as wildfires, generate feelings of loss over the attachment to the land. Attachment to landscape, they found, is formed through complex personal and emotional processes and when a place is drastically altered it might be hard to restore that sense of attachment. They conclude by arguing for efforts to include communities in restoration projects which may restore attachment to landscape which will lead to more positive feelings towards landscape recovery, lessening the feelings of loss triggered through environmental damage (Kooistra et al, 2018). Health and forest service researchers, David Eisenman, Sarah McCaffrey, Ian Donatello, and Grant Marshal take an ecosystems and vulnerabilities approach to study how emotion plays a role during wildfire recovery. Through a similar study as Kooistra et al, they conclude by asking for ecological restoration projects to recognize the possibility of solastalgia in neighboring communities. They recommend that collaborative restoration projects between forest services, community volunteers, land managers, and psychologists might help community members regain a sense of connection with the land, mitigating emotional impacts of solastalgia. Unaddressed in both arguments, this type of intervention may also work to rebuild a sense of community and restore certain social and cultural relationships which are also lost through natural disasters and equally important to address in order to minimize the experience of solastalgia in impacted communities.

A different theme emerges in solastalgia literature that may be embedded within settler colonial ideas of land. Descriptions of solastalgia often refer to a certain feeling of loss of power over the immediate environment which echo settler colonial and western orientations to land and values of land. In Glenn Albrecht's article, discussed above, he works to draw connections between solastalgia and the ongoing dispossession of Indigenous peoples (Albrecht, 2007:46). I find discussions and theorizations of solastalgia useful in understanding negative impacts of mental and physical health in response to a loss of place in post disaster landscapes but the settler colonial state's active dispossession of Indigenous people, destruction of their places of belonging, and ongoing legacies of violence should not be uncritically equated to experiences of solastalgia. Research and theorizations using solastalgia need to interrogate how power as well as historical and political legacies play a role in place-making and dispossession.

I have also found that solastalgia has been theorized at times, in relation to environmental damage, in way that invoke ideas of place and nature that are dominant in settler narratives. Future directions for research on solastalgia need to more robustly consider how power is present within place and the processes that produce experiences of solastalgia. Asklund and Bunn (2018) offer this critique and their work is explored in more detail later in this chapter. Additionally, solastalgia literature often invokes ideas of place and home as static and inclusive spaces of belonging. These representations of place and home have been critiqued by feminist and critical geographers (Blunt and Varley, 2004; Massey et al, 2009) and limit the utility of solastalgia in understanding differential emotional distress in post disaster areas. While I find solastalgia to be a useful conceptual tool to analyze how place is tied to emotion and well-being, I do want to be cautious about reproducing ideas of and relationships to land that uphold Western hegemonic notions that idealize narratives of discovery, wilderness, and stewardship that have been

prevalent in geographic thought as well as notions that represent home and place as static and inclusive.

Community Recovery, Recovering Community

In my interviews, there were many references to "the community," often described as resilient, strong, and as survivors who will thrive again. Jody Jones (Personal Interview 17th July 2019, Mayor of Paradise) described the tight-knit social fabric that formed the community of Paradise. Jones' description of the community became a common theme throughout most of my interviews, especially with those who resided or worked in Paradise. This framing of the town or community of Paradise reflects only one side of Paradise. As Greg Shafer described in the previous chapter, Paradise was two towns in one: one defined as a middle-class community and the other by poverty and isolation. In my interview with Jones, she refused to engage in questions of the homeless population or issues around sheltering following the Camp Fire. The community she invoked was made up of the middle-class population in Paradise. This interview, along with other interviews and key Butte county rebuilding documents, began to reveal a contradictory double role of community as inclusion/exclusion. Community is portrayed as an extension of a home, a positive resource in regaining a sense of place after a disaster that offers stability and improves well-being. However, community is also a way to exclude or deny belonging, foreclosing opportunities to be envisioned in the dominant rebuilding process. When several interviewees discussed the community of Paradise, there was an ambiguity in how the community would remain or coalesce as whole again. It wasn't clear how many of those displaced would return, which seemed to be a point of stress considering how many had left. But in these narratives of recovery there was an expressed desire to recapture the social relations and

sense of community that existed before the Camp Fire. In these interviews, the uncertainty about the future of the community seemed to be an unknown or unnamed stressor. Paradise will ultimately rebuild, and those who I interviewed expressed no doubt about this, but there was also a sense of loss around what was. This described loss demonstrates that sense of place isn't just impacted by environmental disruptions but also social, cultural, and ontological ones, which can have long lasting emotional effects.

When speaking with Casey Hatcher (Personal Interview 5th Sept 2019, Deputy Chief Administration Officer and Recovery Coordinator), she said 'we may not know for decades the impacts in those areas [referring to mental and emotional health], that are kinda the softer pieces that aren't quite as tangible in their damage'. She commented on the increased need of mental and behavioral health services due to an observed notable rise in domestic violence, adverse childhood experiences, and substance abuse already present in Butte County following the Camp Fire. These rising trends were also confirmed by Behavioral health workers, Scott Kennelly and Don Taylor, while they shared that Behavioral Health Services was already under-resourced before the Camp Fire and has been significantly strained since. They mentioned their staff was also struggling with their own mental and emotional health while working to support survivors and other residents of the county. Casey Hatcher and Tony Brownell (CalFire Captain) emphasized there was no way to understand the traumatic event that was the evacuation of the Camp Fire. Casey goes on to describe that those who didn't experience the evacuation are still dealing with secondary forms of trauma in order to cope. Shari McKracken (Personal Interview 29th July 2019, Chief Administration Officer) detailed how PTSD from this event is being seen not only in survivors and 1st responders, but also the secondary responders and those who assisted in the emergency response and recovery. She commented on how the sight of smoke in

the distance makes her start to shake. Tony Brownell discussed how over the years, PTSD has continued to rise for wildland firefighters and how the Camp Fire was particularly bad. He described the first day of the fire as complete chaos, "that people were dying all around you and you couldn't do anything about it". Addressing the emotional impacts of experiencing a natural disaster may be the 'softer pieces' but remain as important elements to attend to while navigating long term recovery efforts. The physical house can be rebuilt, but work is still needed in recovering the ontological home, the social and cultural relations that are deeply embedded in sense of place and disrupted by disasters such as wildfires.

But the question remains as to whose home? Who is included in the future community of Paradise once the town is rebuilt? While interviewees invoked community in nostalgic and positive ways, community is inherently exclusive, with some that belong within the community and others who do not. This exclusivity also plays a role in the processes that designate some as undeserving that was discussed in the previous chapter. The exclusivity of community will have lasting impacts on those less able to access resources to recover and which will ultimately result in deep repercussions for all but especially those who have been positioned as undeserving or outside of the community. Often, community is invoked as an unequivocal good, especially in times of crisis, but the idea of community is often deployed in ways that uphold social hierarchies and normative behaviors with exclusionary and disciplining outcomes (Joseph, 2002: vii).

As I learned more about processes of recovery and rebuilding that was taking place in Paradise, it became clear that the notion of community was inclusive of the middle-class which upheld normative ideas of community. In the previous chapter, I detailed how the behavioral health workers I interviewed described how shelters became a site of othering and exclusion for

people in Paradise who didn't fit into the idea of who is a proper fire victim. As time went on the effects of othering were extending to those who were more financially precarious and less able to recover on their own or 'bounce back'. But in almost every interview, participants would describe the community as strong and resilient while expressing deep desire to recover the sense of community they had before the fire. In Miranda Joseph's Against the Romance of Community she critiques uninterrogated ideas of community, stating "To invoke community is immediately to raise questions of belonging and of power." (Joseph, 2002: xxiii). In places of crisis or post disaster, community aid and a sense of community can be stabilizing and helpful. But whenever there is a designation of a group, there is then a designation of what lies outside of that group. When community is invoked, it's important to consider who lies outside and why, especially as a sense of belonging continually changes overtime as deservingness is renegotiated. Not being seen as a community member has had negative impacts for those still struggling to find housing or stability long after the Camp Fire stopped burning.

On the Paradise Recovery website (makeitparadise.org) there is a long-term recovery plan, which is referred to as the community vision. It was adopted by a special town council meeting on June 25th 2019[7]. Residents are listed as the most important voices in recovery planning, with residents being asked for input each step of the way during this process. Included are 3 charts: Paradise strengths, weaknesses, and opportunities because of the fire. Certain themes from each chart reveal values of the rebuilding process. For the chart on strengths beautiful nature and aspects of community are mentioned in a variety of ways. For opportunities, improvements on accessibility, civil infrastructure, and fire prevention are common themes. For Paradise weaknesses, there are many references to lacks in civil

[7] Retrieved from https://makeitparadise.org/community-vision

infrastructure, economic opportunities, and issues surrounding wildfire response and prevention. But one item that stands out states, “Lack of a feeling of security – drugs, homelessness, poverty”. Equating a lack of feeling secure with the three items that were identified in my interviews as the factors that informed undeservingness reveals how an idea of community has been mobilized as exclusionary. Based off of my interviews, I interpret this to mean that those who are drug users, experience poverty or homelessness pose a threat to safety for those seen as inside of the community. An alternative way to interpret this, through conceptions of radical vulnerability, which will be discussed in more detail in the Conclusion, would offer radical reorientations to the idea of recovery and rebuilding post disaster, one that works to create a sense safety for everyone and one that pushes back against the exclusivity of community and belonging.

Overall, ideas of community work to provide many with a sense of stability and belonging, something that supports how those impacted by the Camp Fire can imagine themselves as resilient. But the idea of community also works to deny those who are seen as outside normative constructions of community access to this form of stability and belonging. It is important within narratives of community recovery to interrogate who is seen as outside of that community and why and if this informs how certain groups are able to access resources for recovery, which not only generates uneven temporalities of the disaster but will exacerbate material and emotional impacts.

Losing a Sense of Place

Environmental distress disrupts our lived and imagined realities creating a sense of misalignment and dislocation (Asklund and Bunn, 2018). It is important to highlight the trauma

of losing a sense of place. While the event itself culminates as a major factor in emotional distress there are cascading effects, such as the altered landscape, precarious housing, loss of trust in systems and institutions, instilled fear and anxiety, and loss of social relations and of home that have lasting impacts on the sense of self in place which will continue to generate emotional distress and conditions of vulnerability for years to come. Greg Shafer, describing the emotional impacts of the Camp Fire, says that they are only just beginning to see these impacts and it may take a couple of years to realize that they can't go back to the way it was, stating "the grief may come in waves". There is a need for better understanding of the emotional elements in constructing and losing a sense of place in order to address the mental and emotional health impacts of natural disasters.

There is currently still energy and resources allocated to mental and emotional health in Butte County following the Camp Fire. On the official website for Camp Fire response and recovery (Buttecountyrecovers.org) there is an information page dedicated to mental health and wellness[8]. There are resources listed for behavioral health services, a distress helpline, information about a group called California Hope that aims to restore stability to fire survivors through outreach and education, information on accessing free counseling through Kaiser Permanente, and links to mental health tips. These are minimal, but essential, that ultimately will help some access mental health resources during the process of recovery. But the free counseling is either for 'brief advice' or for single session counseling support. And a majority of the links for mental health tips have expired. To reflect on what Behavioral Health Workers, Scott Kennelly and Don Taylor, mentioned during their interview, there is long-term need for mental and emotion support services. They did receive additional funding from FEMA to offer

[8] Retrieved from https://buttecountyrecovers.org/wellness

behavioral health services, but the funds would only last for a year and half. And there is a need for different types of trauma-informed training that would be able to address the specific context of a natural disaster. While there are resources that provide and educate the public on mental health resources, a better understanding of solastalgia and the emotional entanglements of place may help support the long-term need for mental and emotional health services as well as address emotional and mental health impacts in more context-specific ways.

With a focus on waste, Geographer Pavithra Vasudevan argues for how memory and intimacy offer other understandings of embodiment which are important to consider alongside structural forms of racial capitalism and racialized toxicities. Throughout her article she highlights how the materiality of toxicity, enacted through environmental racism, is bound to emotion and memory (Vasudevan, 2019). The telling of oral histories reveals memories embedded in the changing landscape, demonstrating how emotion is enmeshed in experiences of time affecting orientations to how residents relate to place as well as notions of the past, present and future. Considering emotional well-being in environmental justice frameworks complicates how we should consider temporalities of recovery and vulnerability. A natural disaster event can generate extreme environmental burdens within the time frame of the event itself. But after the event there are many ways that environmental burdens or health concerns remain in the landscape that continue to have lasting impacts on vulnerable populations which may manifest as emotional health concerns. After speaking to residents of Paradise and Butte County it has become apparent that the emotional well-being of those impacted, directly and indirectly, by the Camp Fire will continue to have lasting impacts beyond the material aspects of recovery and rebuilding.

Documenting the Fire in Paradise

The Netflix Documentary Fire in Paradise (2019) focuses on the evacuation of the Camp Fire and the impacts up to 6 months later. This film was directed by filmmakers Drea Cooper and Zackary Cannepari[9] and produced by Gary Kout, all of which have careers focused on California based projects but are not from Butte County. This was the second documentary to be released about the Camp Fire, the first being a short Frontline documentary that was aired days earlier. Fire in Paradise premiered at Telluride film festival and went on to win the Audience Award for Best Short Film as the Hamptons International Film Festival (Dry, 2019). Overall, the film received high praise for its portrayal of the evacuation from the Camp Fire and was considered to be a potential Oscar nomination for Short Documentary. There are many emotional appeals, of pain, fear, loss and grief, expressed throughout the film. In some key moments, the experience of solastalgia and the impacts of environmental disruptions disrupting a sense of self in place are clearly illustrated. The film makers set up a film both in Chico around Thanksgiving of 2018, while the Camp Fire was still burning but close to containment. Twenty-five Camp Fire survivors responded but only eight interviewees were featured in the film. Film maker Canepari described in a short interview how "People really wanted to talk (and) to tell their stories" (Skropanic, 2019).

The documentary juxtaposes personal interviews, home videos taken before, during, and after the Camp Fire, as well as an illustrated map of the Camp Fire as it spread. The short 40-minute film spends 25 minutes documenting the evacuation and the second half focuses on Paradise after the fire. The filmmakers highlight how the Camp Fire is among many 'megafires' that have become the new normal of California wildfires. The film mainly features the

[9] http://www.zcdc.tv/ Zackary Cannepari and Drea Cooper's website with their other documentary and commercial work.

experience of the evacuation from the perspective of first responders: Ray Johnson (volunteer firefighter), Sean Norman (Cal Fire Captain), Beth Bower (911 Operator), and Rob Nichols (Police Sergeant) as well as residents: Dacia Williams, Jennifer Johnson (Ray Johnson's wife), Mary Ludwig and Abbie Davis (both teachers at the local elementary school).

The opening scene features the audio of a PGE safety alert warning of a fire starting on a ridge near Paradise. It cuts to Ray Johnson, who is already visibly crying, as he begins to speak about that day. A majority of the evacuation footage focuses on a particular road with heavy traffic, referred to as the Skyway. The interviewees described, after waiting upwards of several hours in gridlock traffic, people were asked to abandon their vehicles and take shelter in a building. First responders had them lay on the ground covered in blankets while waiting hours for the fire to pass over them. The audio included with this scene features people crying, praying, assuring others. As these interviewees describe their story, they are often crying or fighting back tears. The stress and trauma of the experience of the fire and evacuation comes across in how the stories are told. The first section of the film ends with Sean Norman (using vehicle or cellphone footage) escaping a fiery area by driving through a wall of fire. It then cuts to him talking about this scene, crying, saying "This is a shitty day".

The next part of this film shows footage of the burnt structures and cars. The town of Paradise looks effectively leveled. One of the more shocking scenes features an unidentified man walking around an area. He describes how his neighbor was just right behind him when he left to evacuate from the fire. As he is shooting a video on his cellphone he comes up to a burned car. He zooms in on his neighbor, a complete human skeleton sitting in the front seat of the car. It cuts to Sean Norman talking about the search and rescue effort, the largest operation in California history.

From this point there is a notable shift in the mood of the film, as certain interviewees begin to talk about unprecedented fire behavior. Aerial shots of other 'megafires' over the past ten years flash on the screen. These fires are described as "massively destructive, rapid spread, resistant to tools or control". Fuel load is named as a factor contributing to fires getting worse but changing weather patterns is attributed as the biggest factor. Sean Norman reflects that there was no way to prepare for the Camp Fire. I interviewed Sean before the release of the film and without knowing he would be featured in it. He was very consistent between my interview and his interview with the film. Comparing my interview with his narrative and the imagery included in the film added complexity to what he shared of his experience and knowledge of wildfires in California. The film, as well as Sean, never mention climate or climate change but instead focus on weather. Returning to Simon's argument from Chapter 1, the depoliticization of wildfires is again highlighted in this moment. The filmmakers choose to emphasize weather patterns over climate change. Is the intent to reach a broader audience by refusing to name climate change, as a contested and politicized topic? But then what work does that do in actually addressing some of the root causes of California wildfires? I found this parallel, between the film and my interviews, to offer evidence to support Simon's argument and the ways that California wildfires are continually depoliticized in media representations.

In a short scene, Mary Ludwig the teacher, describes how the kids are angry and sad because of the fire. During my interview with Behavioral health workers Don Taylor and Scott Kennelly, they described how the week prior to my interview the local school had just reopened. Leading up to the first day the community was excited to regain this sense of normalcy. But what they didn't anticipate was on that first day, as the children were on the bus on their way to school on the same road that they evacuated on, that many of them began to have panic attacks and

break downs. Scott and Don lamented that nobody had seen that coming but they should have. The experience of the fire and its evacuation continues to have emotional impacts. As discussed above, more long term and targeted emotional and mental health services should be made available for those recovering from a natural disaster.

There are several moments near the end of the film that touch on temporalities and how people navigate recovery. When discussing housing as an issue and how many lost their jobs and their homes, Rob Nichols (Police Sergeant) states "that's pretty hard to recover from". In my own interviews with Cal Fire firefighters, Tony Brownell described how some people who already experience financial precarity may never recover, that their lives in some regards, are essentially over. Beth Bower (911 Operator) discusses loss and how many people died while images of cork boards with dozens of missing people flyers crosses the screen. She asks what do they do next, acknowledging Paradise is a small town in the grand scheme of natural disasters. She states there will be more catastrophic events and that "People are going to forget… I just don't want people to forget about us". That is the last line of the film before it cuts to a summary of the Camp Fire and the credits. In my interviews similar appeals to not forget, or to come back in a few years, came up several times. Greg Shafer, at the end of the interview, mentioned that we, as researchers, should come back in a few years to see what is happening then because up to a year later was still too early to tell, in terms of recovery. In an interview about the film, a member of Paradise town Council Mary Melissa Schuster said "It sounds strange, but we need to take advantage of (the attention). We don't want to be forgotten."(Skropanic, Nov 7th, 2019). It's unclear who her appeal is meant for. Perhaps to the federal and state institutions that offer economic support as Paradise continues to materially recover. Both firefighters I interviewed discussed how people would forget, within and outside of Butte County. Tony Brownell

described how it was hard watching people forget so quickly, how this doesn't allow for the structural changes needed in addressing the worsening fire conditions in California. Schuster ends her interview by saying "The real story is the recovery. Paradise generated two and a half times the amount of debris as the Twin Towers over a wider area, and it was removed in half the time. Come back and see what (else) we do." (Skropanic, 2019). The insurmountable efforts that address the material aspects of recovery in Paradise, up to a year after the Camp Fire, are an impressive accomplishment. But through my own interviews and the interviews in this documentary, the emotional elements persist as an important aspect of recovery, elements less easy to address and attend to.

The feelings of pain, fear, loss and grief are expressed throughout the film in ways that draw the viewer in. In some key moments, the experience of solastalgia and the impacts of how environmental disruptions upset sense of place are clearly illustrated drawing attention to the need to attend to the emotional elements of recovery. Several interviewees emotionally described the experience of what it is like to go back and see Paradise after the fire. Others described why they aren't able to return. Jennifer Johnson (resident of Paradise before the Camp Fire), in referring to the experience of the Camp Fire says, "It's a grieving process, feels like a death of the life that we had". While Ray Johnson (Volunteer Firefighter), when referring to recovery, states "I want to watch the walls come up, but Paradise, it's not the same". Dacia Williams (resident of Paradise before the Camp Fire) describes how "it was such a beautiful community", lamenting over the loss of their way of life before the fire. She shares a story of how her youngest child commented one day "Mommy I just want to go home." She responded "Chico [a nearby town] is now our home, all these people are now our home". She hasn't returned to Paradise because she doesn't want to see the road that they attempted to evacuate on. These

quotes demonstrate how the experience of solastalgia is an affective ontological trauma and temporal rupture in response to changes in the surrounding environmental conditions that extends to a loss of the social networks, cultural meanings, and ways of life that constructed this idea of home or our sense of place.

Overall, Fire in Paradise depicts affective emotional scenes documenting the evacuation and aftermath of the Camp Fire through the use of imagery and interviews. There is a lot of pain and grief described around the loss of home, a community, a way of life, and the experience of the evacuation itself. Each of these interviews contain important elements of the experience of the Camp Fire, but it's important to consider whose stories are left out of these narratives. All of the interview subjects appear to be white and speak about the community in similar ways that Jody Jones and others did. The interviewees that lived in Paradise discussed how they had resettled in nearby towns, indicating some sort of financial security and ability in materially recovering, even though the emotional impacts are still clearly being felt. There was one short scene of an elderly woman who was still living in one of the shelters, and a quick shot of FEMA housing tents, but little time focused how folks, who hadn't relocated, are doing. Even from the perspective of the 8 individuals interviewed, it is clear this fire will have lasting emotional and material impacts and I do not intend to discount their losses or grief, but I do think it's important to continually consider whose stories are told and whose are not. What do we miss when we only hear stories from a particular subset of a community or region, or from only within the community? This documentary features mainly first responders and a few residents, with children being featured in a few short scenes. But there is little mention or representation of the elderly, homeless, or those who are struggling with housing insecurity. Again, a moment to consider how Paradise was two towns in one with only part of the story being told in dominant

narratives of recovery. Regardless, this film demonstrated effectively the importance of addressing ongoing emotional impacts a disaster has on whole groups of people. Emotion and sense of place is enmeshed in experiences of temporality and vulnerability, as demonstrated in this film as well as throughout my interviews. Understanding how the disruptions to a sense of place are produced and experienced in relation to a natural disaster and elements of recovery will help address the emotional impacts and vulnerabilities for all within an area impacted by the disaster.

Solastalgia and the Ontologies of Home, the Softer Pieces

Geographers Rice, Heynen, and Burke describe how experiences and memories of weather or climatic events become deeply enmeshed in sense of place informing how people make sense of the present and imagine the future. Asklund and Bunn describe how one's sense of self (they define this as an ontological formation) becomes enmeshed in one's sense of place (Asklund and Bunn, 2018). They suggest that the trauma of losing a sense of place has deep ontological implications, identifying how the phenomenology of environmental distress disrupts our lived and imagined realities creating a sense of misalignment and dislocation. They state, "In essence, ontological well-being degrades through a sense of alienation and disempowerment over the one place where… we find the strongest sense of ontological security: home." (Asklund and Bunn, 2018: 20). Introducing an idea of home demonstrates how sense of place gets tied into ontological well-being. They define home not as the physical home but as a temporal construct that is about continuity and predictability, established through habitual practice and embodied knowledge that orients us all at once to the past, present, and imagined futures. The disruption of 'home' is what generates a form of ontological trauma presenting as solastalgia.

While the notion of home is invoked as a space of stability and security in Asklund and Bunn's work as well as many discussions of solastalgia, there is a whole body of feminist work that critiques discussions of home that frame it as an unequivocal good. Geographers Alison Blunt and Ann Varley, on the geographies of home, highlight the dualities of the experience of home: belonging and alienation, desire and fear, intimacy and violence (Blunt and Varley, 2004: 3). They state:

> "The everyday practices, material cultures and social relations that shape home on a domestic scale resonate far beyond the household… [H]ousehold geographies are intimately bound up with national and transnational geographies. Many studies explore the ways in which material and symbolic geographies of home on such different and coexisting scales are not only gendered – and often embodied by women – but are also shaped by inclusions, exclusions, and inequalities in terms of class, age, sexuality, and 'race'" (Blunt and Varley, 2004: 3)

They push back on home being constructed as a fixed entity and emphasize the emotional elements of home as well as the symbolic and temporal aspects that give the idea of home meaning to argue that home is an important site of geographic analysis.

Alison Blunt goes on to review recent geographic publications on home in relation to broader debates on materiality, embodiment, transnationality, and the nonhuman world: residence, dwelling, and cohabitation (Blunt, 2005: 506). The section on residence discusses the material elements of home and touch on residential segregation, mobility, gentrification, and demographic change. She also explores the domestic ways in which ideas of home are developed and utilized to generate gender inequalities. Which leads into the following section, dwelling, exploring the social relations, lived experiences, and emotional significance of the home (Blunt, 2005: 510). She highlights research that focuses on the experiences of homelessness and domestic violence. Overall, through this literature review, she is arguing for more geographic analysis that engages with home, a physical or conceptual space, as always contested and fluid.

Blunt and Varley's work highlights how this idea of home, as well as the notion of rebuilding, hold different significance for many navigating recovery. Many times, in my interviews, the idea of home, as being rebuilt or resettled, was invoked as an indicator of recovery. But conceptualizations of home have ontological implications going beyond the material efforts of rebuilding a house and those emerge through negative emotional manifestations relating to a loss in a sense of safety, cultural lifeways, and social relationships. What is also equally important, and highlighted in Blunt and Varley's work, is that home is not fixed. In my work, home is discussed in very aspirational or nostalgic ways, to reflect on aspirations of recovery, but this is also an indicator of dominant narratives of recovery and it becomes increasingly important to highlight how "home" is not always a space of respite or safety. An ontological home does not need to be tied to a physical site and through disasters there is loss surrounding disruptions to this notion of home that is less easy to locate, referred to earlier as the "softer pieces".

Solastalgia offers researchers, people in the roles of managing recovery, and mental health providers a framework to understand the emotional impacts of a disaster that may help to inform the need to offer more long-term mental health and emotional support. But the fixed, idealized formation of home should not go uninterrogated. There is a tension here between a home and community that is longed for and as a place that actively defines undeservingness which excludes some from visions of rebuilding. Recovering home, conceptually and physically, has been continually contested or denied to some in efforts of recovery after the Camp Fire.

Through the interviews I conducted and those included in the documentary, conceptions of solastalgia as an ontological trauma is demonstrated as interviewees described grief and loss surrounding not only their physical town and homes, but also loss of their sense of community and ways of life. Asklund and Bunn argue that *solastalgia culminates as a form of displacement*

and loss that must be considered alongside questions of power relations (Asklund and Bunn, 2018, emphasis my own). What I find the most generative from their engagement with solastalgia is how they push the idea of place-based distress beyond just responses to changes in the physical landscape and social relations, but also as a temporal rupture that generates dissonance between memories of the past, present realities, and orientations to the future that disrupts notions of our sense of self in place. Similar to arguments in the previous chapter, social and economic difference play a huge role in how certain groups are able to navigate recovery. Those who were more vulnerable to loss and the impacts of the wildfire prior to the disaster will continue to experience precarious conditions for much longer durations of time. Casey Hatcher (Recovery Coordinator in Paradise), Don Taylor, and Scott Kennelly (Behavioral Health Workers) each emphasized how stable housing deeply impacts mental and emotional health, and for those who are still experiencing precarious housing up to a year later are often the ones struggling with substance abuse or severe depression in response to the Camp Fire. To this point, the overlaps between deservingness, temporalities of disasters, sense of place and emotion become apparent. Those who struggle to bounce back are left negotiating the material elements of recovery, such as housing, which is enmeshed in emotional well-being and a sense of place. Not everyone who experiences the mental and emotional impacts associated with solastalgia, such as depression, substance abuse, grief, are situated in the same position of accessing resources or care with ease. Often this correlates with how they are positioned before the fire. Such as, if they rely on state social services which become more strained after the disaster and varies based on if they are able to access FEMA aid, if they had adequate home insurance or insurance at all, if they had a financial security net, or strong ties to their community for support.

Experiencing a natural disaster is not a grand equalizer, even if everyone in some way is negatively impacted, and this remains true for the emotional impacts of recovery.

Solastalgia, as an ontological problem, emphasizes that the sense of self is constructed relationally in place (Asklund and Bunn, 2018). And when a natural disaster occurs there is a disruption or misalignment between our lived and imagined realities, which are informed through sense of place previous to the disaster. This misalignment generates the affective response of solastalgia which then materially manifests as depression, coping through self-harm or substance abuse, domestic violence, or memory loss. Asklund and Bunn call for a deeper engagement in understanding how a person's sense of place is constructed in relation to their sense of self in order to provide better insight into understanding the implications of the disruption and displacement (Asklund and Bunn, 2018). But, similar to community, place-making can also include practices of exclusion, marginalization, and disconnect that are equally important to attend to. This call, for a deeper engagement into how a persons' sense of place is constructed, is a valuable framing in how geographers can use solastalgia to understand the relationships between people, emotion, and place in a post disaster environment.

Closing Remarks

Any wildfire recovery effort needs to take into consideration the emotional impacts in response to the fire. These emotional impacts derive from the trauma of an evacuation, a destabilizing sense of safety, and the destruction of physical spaces as well as place-based communities and social attachments. We miss a huge part of the impacts due to natural disasters if we do not consider the emotional elements that are enmeshed in disruptions to our sense of place. It is important to include these considerations into my project because often the focus after

a disaster is on material and physical needs. However, even after those material and physical needs are met, the emotional impacts remain and have lasting impacts for communities and those navigating recovery. The emotional and place-based elements might be more difficult to address and resources to address the emotional needs remain limited. Drawing attention to the long-term ways disasters and subsequent recovery remains, as emotional and mental distress, is important work in need of addressing the ontological disruptions due to the experience of a wildfire.

Additionally, understanding emotional distress as response to radical changes in environment, social relations, and temporal constructs may work to produce more effective and just methods of addressing the emotional long-term needs within impacted communities. Part of this work is to continually interrogate processes that produce conditions of vulnerability as discussed in the introduction and chapter 1. These processes can include, but are not limited to, neoliberal social policies, cultural stigmatization of homelessness, substance abuse, or poverty. These processes inform ideas of undeservingness as well as whose emotions and sense of place is seen aligned within the community and therefore included in dominant narratives of rebuilding.

Throughout this chapter I have critically questioned the role community and sense of place has in offering hope, stability, as well as exclusion and denial. Returning to Greg Schafer's (Behavioral Youth Counselor) discussion of Paradise as two towns in one, these narratives beg the question of which Paradise is represented as lost? Which elements of Paradise as home are seen as legitimately grievable or in need of recovering? And more importantly, whose trauma and emotional responses to the Camp Fire become legible and representable and whose do not? As the wildfire season continues to worsen in California, the need to address the emotional and mental impacts of these fires grow. I argue incorporating conceptual frameworks of solastalgia

and place attachment into emotional health services to better understand the emotional impacts of wildfires will become increasingly more urgent. But critical understandings of community, place, and mental health services need to be considered as imbued with power relations that value some emotions, well-being, and lives over others.

The purpose of this discussion is not to diagnose those impacted by the Camp Fire with solastalgia, but instead to use discussions on solastalgia to be conceptually helpful in understanding how emotions and emotional well-being is deeply tied to our sense of place. I find Sara Ahmed helpful in thinking through the connections between emotion and sense of place as well. She states, "Attention to emotions allows us to address the question of how subjects become invested in particular structures such that their demise is felt as a kind of living death." (Ahmed, 2013: 12). Highlighting the need to address emotional and mental health in communities impacted by disasters complicates ideas and temporalities of recovery. Vulnerability, as a spatial and temporal phenomenon, also impacts sense of place and well-being as well as physical health and livelihood post disaster. It is useful to consider how emotion is innately tied to material and economic experiences of vulnerability. Considering how solastalgia emerges in post disaster areas, as an ontological trauma enmeshed in power relations, addresses the need to recover the ontological losses due to the wildfire without focusing only on the material aspects of recovery and dominant narratives of rebuilding. Attending to emotion helps illuminate how people produce a sense of place and place attachment, so much so that disruption or loss of these structures generates emotional distress, described by solastalgia literature and the interviews describing the evacuation and recovery from the Camp Fire.

CONCLUSION:
Writing Amidst Unprecedented Wildfires and a Pandemic

While Paradise is rebuilding, many who were affected by the Camp Fire are still navigating what it means to be recovered. Even now, up to two years later, many that were impacted by the Camp Fire are still struggling to find stability. Several hundred people who were displaced by the fire still live in FEMA trailers while many others have relocated to nearby cities or counties, creating housing shortages and increases in rental and insurance costs in these newly impacted areas (Anguiano, 2020). In a recent news article, several residents of Paradise prior to the Camp Fire described the trauma of the evacuation, the subsequent destruction of their town, and their inability to return (Anguiano, 2020). One man describes how he was able to resettle in Chico through having adequate home insurance: "One of my goals was to, as quickly as I could, get some stability and normalcy again… There is no stability up there. It's starting to come back but there were so many more questions than answers – what's the town gonna look like? Is the water safe? Could we get insurance? …I just wanted to get back to a normal life" (Anguiano, 2020). Another woman, while longing to return the nearby area of Magalia describes "I love these little towns… I've been through a traumatic event with these people. They're my family now" (Anguiano, 2020). These narratives echo both what interviewees shared with me as well as the sentiments featured in the documentary Fire in Paradise.

In this thesis, two divergent pictures of the Camp Fire recovery coalesce, one from behavioral health workers and one from civic employees. This demonstrates an important tension between dominant narratives of rebuilding and recovery versus what this experience is outside of

that dominant narrative. This signals the importance of interrogating the narratives of rebuilding that purposefully exclude 'undesirable' or 'deviant' subjects that are deemed at fault for their conditions and therefore undeserving of aid. But again, the question of two towns in one emerge and it becomes increasingly important to ask whose grief is represented and emphasized as well as whose loss is ignored. Fires are described with a certain level of emotional intensity, as demonstrated through my interviews and the documentary, but only certain people's grief, trauma, and loss is represented as legitimate. Often those who experience poverty or homelessness are excluded from these dominant narratives which works to also exclude them from visions of the future and rebuilding. Uneven temporalities of recovery are normalized through these dominant narratives, which places expectations on those impacted to recover quickly and become productive citizens again. During the event of a natural disaster there is a generated sense of a shared vulnerability that affects a whole community, but the social and political context preceding the event continues to impact the possibilities of an inclusive and equitable community and place. This is why, as Bolin and Kurtz argued, it is important to continually center differential vulnerability in any disaster recovery assessment to ask who was most vulnerable previous to the wildfire and how do they remain vulnerable afterwards. Interrogating the conditions that produce vulnerability works toward more just and equitable futures.

Reflections while Writing

While the scale of my study focuses only on select individuals in response to one fire, a temporal analysis that considers emotional elements of recovery on a larger scale or in relation to other types of disasters is will grow in importance. The framework and arguments I developed in

this study are not bounded to the Camp Fire and has significance for other megafires and the ongoing COVID-19 pandemic, during which I wrote this thesis. The pandemic, much like the Camp Fire, has revealed the extreme and everyday ways vulnerability and recovery is related to social inequalities, based on race, class, gender, and age. Much of this writing also took place during another year of unprecedented wildfires in California. The lightning complex fires burning throughout Northern California are now considered some of the worst fires in California history, with slow containment and conditions continuing to worsen. CalFire has stated that they are unusually under-resourced due to their prison workforce being limited because to COVID-19 (Fuller, 2020). For me, this labor shortage highlights the limits of the unethical system relying so heavily on prison labor to begin with, but also the lack of care and concern going into preventing the spread of COVID-19 within the prison system.

As I watch from a distance, places I called home or found respite in burn. I hear of friends losing their farms, homes, and ways of life and I'm mourning the loss of the redwoods and seeing familiar places radically transformed. The deeply emotional elements of place and disasters becomes so personal and impossible to ignore. This year alone, over twice as many acres have burned in California than in 2018, which at the time was a record, and there remain several more months of a fire season (Anguiano, 2020; Thomas, 2020). There is something particularly emotionally disruptive and isolating to also being asked to remain inside due to weeks of dangerous air quality during a global pandemic, where much social interaction and connection must be conducted outdoors. Firefighters I interviewed predicted the future of California as "a black dot on a map," defined by complete devastation. I feel anxious and concerned of this dire prediction becoming true. But many others I interviewed envisioned different futures for California, even amidst these worsening fire conditions. They invoked ideas

of a holistic community, resilience, and strength. While California continues to burn in unprecedented ways, making it less and less habitable for many, it remains a place that carries meaning. I anticipate some will leave due to the worsening of wildfires, but many will not, either due to choice or circumstance, making the interventions highlighted in this thesis all the more relevant. California will continue to burn, and Californians will continue to rebuild but this process of rebuilding and recovery needs to be reframed in ways that better address the emotional impacts of disasters as well as how those seen as undeserving continue to navigate worsening conditions of vulnerability far beyond the disaster itself.

Implications of this Work

With the understanding that vulnerability is relational and produced through structural formations, either in response to an event or through historical political and social processes, I question whether different methods of recovery are realized when considering the uneven temporalities of a disaster. When considering alternative methods, I take into account cultural and social elements, that are entrenched in political logics, that may produce more compassionate understandings surrounding deservingness and aid. A short-term fix may be creating less regimented access to aid and resources during recovery that take into account socioeconomic differences previous to the disaster. But longer-term fixes should address the processes of legitimation by FEMA, decriminalization of the poor, or cultural interventions that destigmatize houselessness and addiction in ways that don't produce notions of undeservingness. There are larger implications in the need for structural shifts embedded in each of these suggestions and requires imagining other futures and possibilities, socially and politically, beyond recovering a community to how it was before.

Contextualizing the history of FEMA may offer better insight into why there remains certain processes of legitimation that work to produce conditions of vulnerability. FEMA was founded in 1979, in response to the Cold War and the possibilities of a nuclear attack (Lakoff and Collier, 2010). It is structured under the rubric of an all-hazards planning and "…assumed that, for the purposes of emergency preparedness, many kinds of catastrophes could be treated in the same way: earthquakes, floods, major industrial accidents, and enemy attacks were brought into the same operational space, given certain common characteristics" (Lakoff and Collier, 2010: 258). Therefore, a lack of specificity based on disaster as well as socioeconomic differences is a main tenet of FEMA response systems, which often is reflected in how FEMA assistance leaves many in a liminal space of waiting or refusal. Under the George W. Bush administration, much effort was made to privatize services in order to limit government involvement and responsibility (Reid, 2013: 742). Overall, state social policies often work to limit assistance by making a distinction between deserving and underserving individuals (Reid, 2013; Fraser, 2013). Megan Reid's research has found that this distinction is made through an assumption of a middle-class lifestyle, which is racialized, gendered, and deeply tied into property ownership (Reid, 2013: 743). This assumption is written into the process of legitimation and works to deny grants, housing, and financial assistance to many in post disaster conditions, which has disproportionate consequences for already marginalized populations. While I have little hope in only relying on processes of reform to produce more just and equitable systems, the ways in which structural responses work to produce or worsen conditions of vulnerability becomes evident in this example and therefore must be addressed amidst more precarious and unprecedented climate futures. That is why I argue for better understanding when it comes to the production of conditions of vulnerability and uneven temporalities.

Emotional vulnerability is entangled with the experiences of material and physical vulnerability. There needs to be more attention and resources made available for addressing the long-term impact of natural disasters on mental or emotional health. This is complicated due to the variety of ways to address emotional responses, the different needs by different groups, and the place specificity needed in this approach. Scott Kennelly and Don Taylor, the behavioral health workers I interviewed, discussed the need for more trauma-informed trainings, that address the specific needs of a community post-natural disaster that appeals to ideas of resiliency and rebuilding, as opposed to other forms of trauma-informed trainings that work to address conditions after mass shootings or terrorist attacks. I propose that this should include cultural and social interventions that work to minimize perpetuating harmful ideas of who is undeserving of aid and address the rise in domestic violence, self-harm, substance abuse, and adverse childhood experiences in relation to the experience of a natural disaster, without reproducing stigmatized narratives or relying on carceral systems. They also emphasized that the additional support and funding they received to respond to the trauma of the Camp Fire only lasted for a year and half after the event itself. Allocating more funds over longer periods of time and funding research on trauma informed trainings in post natural disaster settings would be a clear way to begin to address the emotional needs of impacted communities, something that will continue to grow in importance.

Addressing conditions of vulnerability during disaster recovery should establish practices that reduce harm and exclusion in order to prioritize the well-being within a group navigating recovery. Both Richa Nagar and Judith Butler have discussed radical possibilities of vulnerability and precarity that work toward an ethical obligation which achieves equity and justice. I find their proposals helpful in envisioning a different sort of recovery in community,

one that isn't predicated on exclusion that upholds normative social standards. Nagar proposes the idea of hungry translations and radical vulnerability. She argues that a radical vulnerability is relational and demands that we let go of imagining ourselves as autonomous and instead understand that our self is co-constituted and entangled with the other (Nagar, 2018: 19). Similarly, Butler critiques liberal individualism to argue for forms of cohabitation that inform an ethical obligation to act. She states, "precarity is indissociable from that dimension of politics that addresses the organization and protection of bodily needs. Precarity exposes our sociality, the fragile and necessary dimensions of our interdependency" (Butler, 2014: 148). Building off of both Butler and Nagar, I ask what are the possibilities within wildfire disaster and recovery response when we center strategies that don't perpetuate stigmas or further criminalize poverty, as an ethical obligation focusing on an inclusive, community well-being versus the individual "bouncing back." I find both of these articles generative as they offer a different framework in approaching notions of vulnerability and recovery for my research. Through centering radical vulnerability and cohabitation in disaster response and recovery, new possibilities emerge in how deservingness is perceived that decenters the individual. Decentering the individual may offer more just and equitable ways to address recovery over time that minimize the short and long-term negative impacts disasters have on communities, materially and emotionally.

Integrating understandings of solastalgia into mental health services may allow for mental health workers and residents to gain a better understanding of the emotional impacts of a disaster and in turn may lead to highlighting the importance of accessible mental health resources that are more contextually specific and aim to restore a sense of place to those who have lost it. A deeper understanding on how vulnerability is produced within specific political, economic, and social contexts and systems needs to be carefully and robustly included in disaster response

and recovery paradigms, but these aren't easy or straightforward tasks in light of worsening natural disasters and climate change.

My research contributes to current theorizations of vulnerability and temporality by investigating the long-term effects of wildfires, suggesting the need for a different temporal framing in a research approach and one that also considers the emotional elements. I complicate current debates in geography on social inequities and disaster recovery by examining how those impacted by wildfires orient themselves and their communities to the past, present, and future amidst disruptions to a sense of place. Prioritizing more just and equitable outcomes demands a different type of disaster and recovery governance, one that understands how nature and society co-constitute each other in place and how the burdens of a wildfire persist through time. Much is missed when we bound disasters temporally and lack engagement with long-term structural issues that produce uneven conditions of vulnerability.

This study adds to the accumulating evidence in Environmental Justice and Political Ecology research that demonstrates how federal and state recovery and response to wildfires and natural disasters often worsen the conditions of the most vulnerable. There is need for more work to interrogate the mechanisms that produce the conditions of vulnerability to disasters in the first place if equitable and just efforts of recovery are to take place. This work highlights the need for more investigation into the temporal and emotional vulnerabilities in disaster research. In light of worsening wildfire seasons and increasing larger climatic events due to climate change, it is important to address the historical, social, and political configurations that inform or produce the conditions of vulnerability during disaster recovery. Additionally, I aim to advance the thinking of vulnerability through linking the importance of place, emotion, and temporalities as elemental facets of long-term recovery. A critical perspective is needed to get beyond the nostalgic and

idealized constructions of community and place, a perspective that addresses the inequalities, exclusions, and marginalization inherent in place-making and community building, in order to creates visions and build towards an equitable future amidst the precarious conditions of climate change.

In this thesis, I have argued for deeper engagement of uneven temporalities of recovery and how emotional attachments to place function as part of the experiences of recovery informing deservingness to aid. I have centered and provided an expansive conceptualization of vulnerability in my analysis that is linked to temporality and goes beyond materiality to include emotions. Through contesting normative temporalities of disaster, I have critiqued designations of deservingness as well as advocated for more mental and emotional health support for those who have been impacted by a disaster. This thesis offers an alternative way to analyze the short and long-term impacts of a wildfire and subsequent recovery efforts. Through utilizing temporality, emotion, and sense of place as intersecting analytical lenses, my research has revealed how the experience of a wildfire impacts emotional well-being and place attachment, complicating notions of recovery and the processes that produce the conditions of vulnerability.

REFERENCES

Ahmed, Sara. 2013. Introduction: Feel your Way and The Contingency of Pain in The cultural politics of emotion. Routledge.

Albrecht, Glenn. 2007. "'Solastalgia' A New Concept in Health and Identity." Australasian Psychiatry : Bulletin of Royal Australian and New Zealand College of Psychiatrists 15 Suppl 1: S95–98.

Andersen, L. M., & Sugg, M. M. 2019. Geographic multi-criteria evaluation and validation: A case study of wildfire vulnerability in Western North Carolina, USA following the 2016 wildfires. International Journal of Disaster Risk Reduction, 39.

Anguiano, Dani. 2020. "Trauma, fear, homelessness: life after California's deadliest fire shows the future of climate crisis". The Guardian. Retrieved from https://www.theguardian.com/us-news/2020/sep/09/trauma-fear-homelessness-paradise-camp-fire-migrants-climate-change

Askland, Hedda Haugen, and Matthew Bunn. 2018. "Lived Experiences of Environmental Change: Solastalgia, Power and Place." Emotion, Space and Society 27 (August 2017): 16–22.

Blunt, A. 2005. Cultural geography: Cultural geographies of home. Progress in Human Geography, 29(4), 505–515.

Blunt, A., & Varley, A. 2004. Introduction. Geographies of Home. Cultural Geographies, 11, 3–6.

Bolin, B., & Kurtz, L. C. 2018. Race, class, ethnicity, and disaster vulnerability. In Handbook of disaster research (pp. 181-203). Springer, Cham.

Brown, Kate, Kathryn Ecclestone, and Nick Emmel. 2017. "The Many Faces of Vulnerability." Social Policy and Society 16 (3): 497–510.

Butler, Judith. 2014. the Ethics of Cohabitation. The Journal of Speculative Philosophy, 26(2), 134–151.

Capper, J.K., 2020. Potential risk factors of complex PTSD in California professional firefighters (Doctoral dissertation).

Chen, Mel Y. 2012. "Lead's Racial Matters" in Animacies. Biopolitics, Racial Mattering and Queer Affect, 159-188.

Collins, T. W. 2008. The political ecology of hazard vulnerability: marginalization, facilitation and the production of differential risk to urban wildfires in Arizona's White Mountains. Journal of Political Ecology, 15(1), 21.

Cutter, S. L., Boruff, B. J., & Shirley, W. L. 2003. Social vulnerability to environmental hazards. Social Science Quarterly, 84(2), 242–261.

Davies, Ian P., Haugo, Ryan D., Robertson, James C., Levin, Phillip S. 2018. "The Unequal Vulnerability of Communities of Color to Wildfire." PLoS ONE 13(11).

Davis, Angela. 2011. The Meaning of Freedom: And other Difficult Dialogues. San Francisco: City Lights Publishers.

Davis, Mike. 1995. "The Case For Letting Malibu Burn." Environmental History Review 19, no. 2: 1–36.

Derickson, Kate D., Dowler, Lorraine, Laliberte, Nicole. 2010. "Advances in Feminist Geography - Oxford Research Encyclopedia of International Studies." International Studies, 33.

Dry, Jude. 2019."'Fire in Paradise' Trailer: Netflix's Gripping Oscar Contender for Documentary Short". Indie Wire. Retrieved from https://www.indiewire.com/2019/10/fire-in-paradise-trailer-netflix-oscar-contender-short-film-1202182405/

Dowler, Lorraine and Jo Sharp, 2001. "A Feminist Geopolitics?" Space & Polity. Vol. 5 Issue 3

Eisenman, David, Sarah McCaffrey, Ian Donatello, and Grant Marshal. 2015. "An Ecosystems and Vulnerable Populations Perspective on Solastalgia and Psychological Distress After a Wildfire." EcoHealth 12 (4): 602–10.

Fraser, Nancy. 2013. Struggle over Needs and A Genealogy of "Dependency" in Fortunes of Feminism. London: Verso.

Fuller, Thomas. 2020. "Corona Limits California's Efforts to Fight Fires with Prison Labor". New York Times. Retrieved from https://www.nytimes.com/2020/08/22/us/california-wildfires-prisoners.html

Fuller, Thomas. 2020 "Raging Fires Add to California's August Torment". New York Times.

Goldberg, M. H., van der Linden, S., Leiserowitz, A., & Maibach, E. 2019. Perceived Social Consensus Can Reduce Ideological Biases on Climate Change. Environment and Behavior.

Haas, Bridget M. 2017. Citizens-in-waiting, deportees-in-waiting: Power, temporality, and suffering in the US asylum system. Ethos, 45(1), 75-97.

Holmes, Seth M. 2020. Migrant farmworker injury: temporality, statistical representation, eventfulness. Agriculture and Human Values, 37(1), 237-247.

Holmes, Seth M., and Heide Castañeda. 2016. "Representing the 'European Refugee Crisis' in Germany and beyond: Deservingness and Difference, Life and Death." American Ethnologist 43 (1): 12–24.

Joseph, Miranda. 2002. Against the Romance of Community. U of Minnesota Press.

Kooistra, C., T. E. Hall, T. Paveglio, and M. Pickering. 2018. “Understanding the Factors That Influence Perceptions of Post-Wildfire Landscape Recovery Across 25 Wildfires in the Northwestern United States.” Environmental Management 61 (1): 85–102.

Lave, Rebecca. 2012. “Neoliberalism and the Production of Environmental Knowledge.” Environment and Society 3, no. 1: 19-38.

Massey, D. 2005. For space. Sage.

Massey, D., Research Group, H. G., Bond, S., & Featherstone, D. (2009). The possibilities of a politics of place beyond place? a conversation with doreen massey. Scottish Geographical Journal, 125(3–4), 401–420.

McBride, Ashley, Gutierrez, Melody, Asimov, Nanette. 2018. “29 dead in Camp Fire as firefighters make gains on Butte County blaze”. SF Gate. Retrieved from https://www.sfgate.com/california-wildfires/article/Butte-County-fire-only-grows-slightly-as-13381900.php

McKittrick, Katherine. 2011. “On Plantations, Prisons, and a Black Sense of Place.” Social & Cultural Geography 12 (8): 947–63.

Nagar, R. 2018. “Hungry Translations: The World Through Radical Vulnerability”. Antipode, 51(1), 3–24.

Park, Y., & Miller, J. 2008. Smith College Studies in Social Work The Social Ecology of Hurricane. Smith College Studies in Social Work, 76(3), 37–41.

Pulido, Laura. 1996. “A Critical Review of the Methodology of Environmental Racism Research,” Antipode 28:2. Pgs. 142-59.

Pulido, L. (2000). Rethinking environmental racism: White privilege and urban development in southern California. Annals of the Association of American Geographers, 90(1), 12–40.

Reid, M. 2013. Social Policy, “Deservingness,” and Sociotemporal Marginalization: Katrina Survivors and FEMA. Sociological Forum, 28(4), 742–763.

Rice, Jennifer L., Burke, B.J., Heynen, N. 2015. “Knowing Climate Change, Embodying Climate Praxis: Experiential Knowledge in Southern Appalachia.” Annals of the Association of American Geographers, vol. 105, no. 2, pp. 253–262.

Robbins, Paul. 2015. “The Trickster Science” in The Routledge Handbook of Political Ecology. New York: Routledge Publishing. pg. 89-101.

Rose, Gillian. 1993. Feminism & geography: The limits of geographical knowledge. U of Minnesota Press.

Ruwanpura, K. N. 2008. Temporality of disasters: The politics of women's livelihoods "after" the 2004 tsunami in Sri Lanka. Singapore Journal of Tropical Geography, 29(3), 325–340.

Sharma, Sarah. 2013. Tempo Tantrums: Speed and the Cultural Politics of Time in In the Meantime: Temporality and Cultural Politics. Durham: Duke University Press. Pgs. 1-25.

Skropanic, Jessica. 2019. "Paradise gets Hollywood's attention: Award-winning Camp Fire film could go to Oscars". Record Searchlight. Retrieved from https://www.redding.com/story/news/2019/11/07/camp-fire-in-paradise-netflix-documentary-oscars-california-wildfire/2509208001/

Simon, G. L. 2018. How the West Was Spun: The De-politicization of Fire in the American West. The Palgrave Handbook of Critical Physical Geography, 153–178.

Sultana, F. 2020. Political ecology 1: From margins to center. Progress in Human Geography.

Syphard, Alexandra D., Volker C. Radeloff, Jon E. Keeley, Todd J. Hawbaker, Murray K. Clayton, Susan I. Stewart, and Roger B. Hammer. 2007. "Human Influence on California Fire Regimes". Ecological Applications 17, no. 5: 1388–1402.

Vasudevan, Pavithra. 2019. "An Intimate Inventory of Race and Waste." Antipode 0 (0): 1–21.

Watts, M. J., & Bohle, H. G. 1993. The space of vulnerability: the causal structure of hunger and famine. Progress in human geography, 17(1): 43-67.

Warsini, Sri, Jane Mills, and Kim Usher. 2014. "Solastalgia: Living with the Environmental Damage Caused by Natural Disasters." Prehospital and Disaster Medicine 29 (1): 87–90.

Winkler, J. A. 2016. Embracing Complexity and Uncertainty. *Annals of the American Association of Geographers*, *106*(6), 1418–1433.